

# **Initial Study**

## **Sunrise Senior Living**

**Conditional Use Permit**

**CP07-101**

**2517 S Bascom Ave, San Jose**

*City of San Jose*

*March, 2008*





## ENVIRONMENTAL DETERMINATION

### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture Resources	<input type="checkbox"/> Air Quality	<input type="checkbox"/> Biological Resources
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/Soils	<input type="checkbox"/> Hazards & Hazardous Materials	<input type="checkbox"/> Hydrology / Water Quality
<input type="checkbox"/> Land Use / Planning	<input type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Population / Housing
<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation / Traffic	<input type="checkbox"/> Utilities / Service Systems
<input type="checkbox"/> Mandatory Finding of Significance			

### DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable legal standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed name

\_\_\_\_\_  
City of San Jose-Planning Division



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## **SECTION I. INTRODUCTION**

This Initial Study has been prepared in compliance with the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.) as amended January 1, 2004, and the State CEQA Guidelines (California Administrative Code 15000 et seq.) as amended December 1, 2003. According to Section 15070 of the CEQA Guidelines, “A public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

- (a) The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment,
- (b) The Initial Study identified potentially significant effects but:
  - 1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
  - 2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant impact on the environment.

Section 15382 of the CEQA Guidelines defines “significant effect on the environment” as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, mineral, flora, fauna, ambient noise, and object of historic aesthetic significance.

An Initial Study is a preliminary analysis prepared by the lead agency to determine whether an EIR or Negative Declaration must be prepared and to identify the significant effects to be analyzed in an EIR (CEQA Guidelines Sec. 15365).

The Initial Study for the proposed project will serve to focus on effects determined to be potentially significant. This document has been prepared as an objective, full-disclosure document to inform agency decision-makers and the general public of the direct and indirect physical environmental effects of the proposed action and any measures to reduce or eliminate potential adverse impacts.

The environmental checklist is consistent with the State CEQA Guidelines and is used to focus this study on physical and environmental factors that may be further impacted by the proposed project. The checklist indicates one of the following determinations for each specified potential impact under each category of impact included on the checklist:

- “Potentially Significant Impact”
- “Less Than Significant With Mitigation Incorporated”
- “Less Than Significant Impact”
- “No Impact”



**SECTION II.  
PROJECT DESCRIPTION**

- 1. Project Title:** Sunrise Senior Living Facility at 2517 S. Bascom Ave.
- 2. Lead Agency Name and Address:** City of San Jose  
Department of Planning, Building and Code Enforcement  
200 East Santa Clara Street  
San Jose, CA 95113
- 3. Contact Person and Phone Number:** Martina Davis, Project Manager  
(408) 535-7828
- 4. Project Location:** The project site is located at 2517 South Bascom Avenue, within the City of San Jose, in the County of Santa Clara, California.
- 5. APN# of the Project Site:** 412-24-009
- 6. Project Sponsor's Name and Address:** Sunrise Senior Living Inc.  
1340 Treat Boulevard, Suite 130  
Walnut Creek, CA 94597
- 7. General Plan Designation:** General Commercial
- 8. Zoning:** CP (Commercial Pedestrian)
- 9. Description of Project:** Conditional Use Permit (CUP) to allow for 69 units of senior apartments in a 0.50 acre lot.
- 10. Surrounding Land Uses and Setting:** The proposed project site is surrounded by residential uses to the west and east, commercial use to the north and office use to the south.

### **PROJECT LOCATION**

The project site is located at 2517 South Bascom Avenue, at the southwest corner of South Bascom Avenue and Surrey Place in southwestern San Jose. The site is approximately 0.7 miles south of East Campbell Ave.

### **ENVIRONMENTAL SETTING**

The project site is within a developed area, and is currently vacant, free of any debris, improvements, or vegetation. It was formerly a gas station which was demolished in 1977. The site is surrounded by multi-family residential to the west, an office building to the south, a restaurant to the north across Surrey Place and multi-family residential to the east across South Bascom Avenue.

### **PROJECT CHARACTERISTICS**

The project applicant proposes a Conditional Use Permit (CUP) to allow the development of up to 69 units senior apartment units on the property. The proposed four-story building has an underground parking garage, and provides 82 beds for seniors. The project proposes 36 below-ground parking spaces. The building footprint is approximately 14,589 square feet. Access to the parking garage is provided via a ramp from South Bascom Avenue along the south property line. The building will be set back approximately 16 feet from the west property line above ground and 10 feet underground, 11 inches to 11.2 feet from the south property line underground and 18.7 feet above ground, 6 to 8 feet from east property line. Approximate 3.1 feet to 9.3 feet setbacks are proposed along the Surrey Place frontages.

The Current General Plan Land Use Transportation Diagram designation of the project site is General Commercial and the site is zoned Commercial Pedestrian District (CP). According to the Zoning Ordinance, the proposed residential use is allowed under a Conditional Use Permit (CUP) in the CP district.

Development of the site for the proposed project would require grading. The street frontage along the existing roadways will be improved to conform to City of San Jose standards, and will include sidewalks and street trees.



### SECTION III. ENVIRONMENTAL CHECKLIST AND DISCUSSION OF ENVIRONMENTAL CHECKLIST RESPONSES

The following Environmental Checklist Form is from Appendix G of the State CEQA Guidelines and identifies environmental impacts that could occur if the proposed project was constructed. Discussions supporting the impact conclusions immediately follow the checklist. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved.

1. AESTHETICS		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **NO IMPACT.** The project site is located in a developed area along a commercial street. The site is currently surrounded by commercial uses, multi-family low-rise residential structures and office buildings. There are no designated scenic vistas on or near the project site. Conversion of the site to senior residential use would not result in any impacts to scenic vistas.

(Source: 8, 11)

b) **NO IMPACT.** The project site does not contain any designated scenic resources, nor is it located near a state scenic highway. There are no trees on the project site. The project site does not contain any historic buildings or structures. Therefore, no impacts to scenic vistas would occur as a result of the proposed project.

(Source: 8, 11)

c) **LESS THAN SIGNIFICANT IMPACT.** The proposed Conditional Use Permit (CUP) would allow the construction of up to 69 apartment units. The project site is currently vacant and is within a developed area. Conformance with the City’s Residential Design Guidelines would ensure compatibility with existing residential and commercial uses on immediately surrounding properties. Less than significant impacts to the visual character or quality of the site and surroundings would result from implementation of the project.

(Source: 8,11)

**d) LESS THAN SIGNIFICANT IMPACT.** The potential increases in light and glare resulting from the proposed building would be mitigated by the installation of new landscaping, building articulation, garage parking of vehicles, etc. Exterior building lighting associated with the new development would likely create a minor increase in the amount of nighttime lighting, however it would not adversely affect views in the area. The project is required to conform to the City's Residential Design Guidelines and to the standards of the City's Outdoor Lighting Policy. The project proposes flush recessed wall lighting on the exterior of the building, which conforms to the Outdoor Lighting Policy. Therefore, less than significant impacts would occur as a result of the project.

During the construction of the proposed new building, short-term visual impacts will be caused by grading operations, construction debris, and trash accumulation on the site. Completion of project improvements, including the installation of landscaping, would eliminate short-term visual impacts of the grading and construction impacts.

**Standard Measure 1-1:** The project shall implement the following standard measure(s):

- Design of the project shall conform to the City's *Residential Design Guidelines*.
- Lighting on the site shall conform to the City's Outdoor Lighting Policy (4-3).

(Source: 11,25)

**CONCLUSION.** The proposed CUP will result in a project that conforms to the City's Residential Design Guidelines and Outdoor Lighting Policy. The project will include substantial tree and landscape planting to City standards and, therefore, would not result in significant adverse aesthetic impacts. **(Less than significant impact)**

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## 2. AGRICULTURAL RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) NO IMPACT.** The infill project site is located in an urban area of the City of San Jose, and the project site is not classified as farmland. Impacts are less than significant.

(Source: 5,8)

**b) NO IMPACT.** There is no Williamson Act contract for the property.

(Source: 5)

**c) NO IMPACT.** The proposed project does not include any changes in the existing environment that could result in the conversion of prime farmland to non-agricultural uses. The proposed project site is located within the developed, urban area of the City.

(Source: 5, 25)

**CONCLUSION.** Development of the project site as proposed would not result in farmland impacts. (No impact)

### **3. AIR QUALITY**

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

<b>Would the project:</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) LESS THAN SIGNIFICANT IMPACT.** The Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines (Revised December 1999) state that cumulative air quality impacts would not result if a project is consistent with the most recently adopted Clean Air Plan (CAP), which is the *Bay Area 2000 Clean Air Plan* prepared by the BAAQMD and adopted December 20, 2000. The City's General Plan has implemented the control measures contained in the CAP. The existing General Plan Land Use designation for the project site is General Commercial and the site is currently zoned Commercial Pedestrian District (CP). According to the San Jose Zoning Ordinance, the proposed residential use is allowed under a Conditional Use

Permit (CUP) within the CP district. The Zoning Ordinance is in conformance with the General Plan, so the proposed project is also considered to be consistent with the General Plan. Since the project is consistent with the policies and programs of the General Plan (see discussion under Checklist Item 9.b., below), and the General Plan is consistent with the Clean Air Plan, the project would not conflict with or obstruct implementation of the CAP. Therefore, less than significant impacts would occur as a result of the project.

(Source: 1,2,3,4, 11,16)

**b) LESS THAN SIGNIFICANT IMPACT.**

Applicable air quality criteria for evaluation of the project's impacts are federal air pollutant standards established by the U.S. Environmental Protection Agency (EPA) and reported as National Ambient Air Quality Standards (NAAQS), and the California Ambient Air Quality Standards (CAAQS), which are equal to or more stringent than the federal standards.

The California Air Resources Board (CARB) coordinates and oversees both state and federal air quality control programs in California. Santa Clara County is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The project site is located in the Bay Area Air Basin. The Bay Area Air Basin is currently classified as a "nonattainment" area for the state ozone standard, which means that the level of ozone during a one-hour period exceeds the standard of 0.09 parts per million (ppm) on more than one day per year, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. For particulate matter less than 10 micrometers in diameter (PM<sub>10</sub>), the Bay Area Air Basin is currently designated as a "nonattainment" area for the state standard, and is designated unclassified for particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) pending further monitoring data. All other pollutants are designated as "attainment" or "unclassified" for federal standards and as an "attainment" area for the state standard.

The *BAAQMD CEQA Guidelines* contain thresholds of significance for criteria pollutants. For one of these thresholds (total emissions from project operations), a screening method is provided for determining whether a proposed project may potentially exceed the threshold. The Guidelines include a table providing approximate sizes of various land uses which, based on default assumptions for modeling inputs, would result in mobile source emissions that exceed BAAQMD's threshold of significance for NO<sub>x</sub>. The values in the table represent the approximate sizes of projects for which total emissions may exceed the threshold. The proposed 82 bed senior assisted living facility falls below the limit of 320 single-family or 510 apartment units shown in the table, therefore the project would not be expected to exceed the thresholds of significance, and no further analysis is required.

The City of San Jose uses the threshold of significance established by the Bay Area Air Quality Management District (BAAQMD) to assess air quality impacts. Based on the BAAQMD threshold of significance, projects that generate fewer than 2,000 vehicle trips per day are not considered major air pollutant contributors and do not require a technical air quality study. As this project will not generate more than 2,000 vehicle trips per day, no air quality study was prepared for this project.

**Construction Impacts.** Construction activities are generally short-term in duration, but may still cause adverse air quality impacts. Emissions of fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on unpaved surfaces, and vehicle and equipment exhaust. PM<sub>10</sub> and PM<sub>2.5</sub> emissions from construction activities can lead to adverse health effects and cause nuisance concerns, such as reduced visibility and the generation of dust. Project construction on the site would likely

generate PM<sub>10</sub> emissions from various construction activities, including demolition of the existing structures on the site, grading, excavation, and the operation of equipment and vehicles.

The *BAAQMD CEQA Guidelines* establishes thresholds of significance for construction and operation (post construction) phases of projects. According to the *BAAQMD CEQA Guidelines*, the BAAQMD's "approach to CEQA analyses of construction impacts is to emphasize implementation of effective and comprehensive control measures rather than detailed quantification of emissions." The determination of significance with respect to construction emissions, according to the *Guidelines*, should be based on a consideration of the control measures to be implemented. Table 2 of the *BAAQMD CEQA Guidelines* contains the feasible control measures for construction emission of PM<sub>10</sub>.

Implementation of the following Standard Measure, based on Table 2 of the BAAQMD CEQA Guidelines, will reduce potential construction impacts to less than significant levels.

**Standard Measure 3-1:** The following controls shall be implemented during all construction phases of the project:

- Water all active construction sites at least twice daily, and more often during windy periods;
- Cover all trucks hauling soil, sand and other loose materials *or* require all trucks to maintain at least two feet of freeboard;
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets;

(Source: 1, 2, 3, 4, 15)

c) **LESS THAN SIGNIFICANT IMPACT.** According to the *BAAQMD CEQA Guidelines*, a project would not result in a cumulative air quality impact if it does not individually result in a significant air quality impact, is located in a jurisdiction with a general plan that is consistent with the Clean Air Plan, and is consistent with the General Plan. The project would not individually result in a significant air quality impact with the implementation of mitigation measures (see response to Checklist Item 3.b, above). The San Jose General Plan is consistent with the CAP and the proposed project is consistent with the Major Strategies and Goals and Policies of the City's General Plan, as described below:

**Major Strategies.** The project is consistent with the General Plan's Growth Management Major Strategy, which seeks to promote new growth within the Greenline/Urban Growth Boundary so that new development will be prudently located to achieve the most efficient use of urban facilities and services, and to that end it encourages infill development within urbanized areas where urban facilities and services are already available, thus minimizing the cost of providing urban services. This Major Strategy also emphasizes maintaining the balance between residential, commercial and industrial land uses in order to balance service demands and revenue sources, and stresses that the location of housing is critical to minimizing service costs. This Major Strategy encourages compact, efficient infill development and discourages more costly development at the edge of the City. The project site's location within an existing developed area, which has adequate public services, public utility capacities, and close proximity to mass transit, demonstrates the project's consistency with this Major Strategy.

The Housing Major Strategy seeks to maximize housing opportunities on infill parcels already served by the City, and to consider the addition of new residential lands only when the City is confident that urban services can be provided. It also seeks to provide sufficient housing opportunities for new workers to support continued economic development, and to encourage new housing within the City's existing Urban Service Area and higher density residential development particularly near transit facilities. The project is consistent with this Major Strategy, as it would locate higher density housing in a developed area that contains available utilities and access to existing mass transit.

**Goals and Policies.** The Residential Land Use Goal seeks to provide a high quality living environment in residential neighborhoods, and to ensure that lands planned for residential use are fully and efficiently utilized to maximize the City's housing supply. The project would be consistent with the Policies supporting these goals, including Residential Land Use Policies 1 and 24. Policy 1 encourages new residential development at urban densities (one dwelling unit per acre or greater) only where adequate services and facilities can be feasibly provided. Policy 24 states that new residential development should create a pedestrian friendly environment by connecting the features of the development with safe, convenient, accessible, and pleasant pedestrian facilities. Such connections should also be made between the new development, the adjoining neighborhood, transit access points, and nearby commercial areas. The proposed project, which will include pedestrian corridors throughout the development and will provide pedestrian access to the existing sidewalks on public streets, transit stops and local commercial facilities, is consistent with this Policy.

The proposed project is in conformance with the General Plan's Growth Management and Housing Major Strategies, and with the Residential Land Use Goals and Policies, and is therefore consistent with the CAP. Less than significant cumulative air quality impacts would result from implementation of the project.

*(Source 1,2,3,4,11)*

**d) LESS THAN SIGNIFICANT IMPACT.** The proposed project would not be expected to expose sensitive receptors to substantial pollutant concentrations, as the project would not generate substantial amounts of pollutants (as defined by the BAQMD). Mitigation measures outlined in the response to Checklist Item 3.b, above, would reduce potential construction impacts to less than significant levels. Therefore, less than significant impacts would occur as a result of the project.

*(Source: 3,4,11)*

**e) NO IMPACT.** The proposed project would not generate any objectionable odors during construction or operation. Therefore, no impacts would occur as a result of the project.

*(Source: 25)*

**CONCLUSION.** The proposed development project is in conformance with the General Plan. Conformance with the dust control measures contained in Standard Measure 3-1, above, would further reduce potential air quality impacts to less than significant levels. **(Less than significant impacts)**

**4. BIOLOGICAL RESOURCES**

<b>Would the project:</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) NO IMPACT.** The project site consists of developed parcels located in a residential/commercial area of the City of San Jose and is surrounded by existing development. The project site is currently vacant. There are no trees on the project site. Due to the developed nature of the project area, the potential for wildlife diversity is very low, in particular burrowing owl habitat is not present on the site. No species identified as a candidate, sensitive, or special status species are expected to occur on the site. There is no identifiable habitat for any species on the project site or on the neighboring sites.

(Source: 8)

b) **NO IMPACT.** The project site and its immediate surroundings do not contain riparian habitat or other sensitive natural communities as defined by the California Department of Fish and Game or U.S. Fish and Wildlife Service. And there is no riparian corridor nearby. Therefore, no impacts would occur as a result of the project.

(Source: 8)

c) **NO IMPACT.** The United States Army Corps of Engineers (USACE) regulates the dredge and fill of Waters of the U.S. through Section 404 of the Clean Water Act. This project site is developed and does not contain federally protected waters or wetlands. Therefore, no impacts would occur as a result of the new project.

(Source: 8)

d) **NO IMPACT.** The subject project site is located in an urban area that is surrounded by industrial, commercial and residential land uses. The project site is not located within an established fish or wildlife migratory corridor. Therefore, no impacts would occur as a result of the new project.

(Source: 8)

e) **NO IMPACT.** The project site is vacant and there are no trees on the project site. Therefore no impacts would occur as a result of the new project.

(Source: 8)

f) **NO IMPACT.** The subject site is not located in an area that is protected by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state conservation plan. Therefore, no impacts would occur as a result of the new project.

(Source: 8, 11)

**CONCLUSION.** Implementation of the proposed project would not result in significant adverse biological impacts. (No impact)

<b>5. CULTURAL RESOURCES</b>				
<b>Would the project:</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



a) **NO IMPACT.** The project site is vacant. Therefore no impacts would occur as a result of the new project.  
(Source: 8)

b) **LESS THAN SIGNIFICANT IMPACT WITH MITIGATION INCORPORATED.**  
A cultural resource evaluation of the project site was prepared by Archaeological Resource Management. As the report may discuss that location of specific archaeological sites, it is considered administratively confidential and is not included in this Initial Study. Qualified personnel may request a copy from the City's Planning Division located at 200 East Santa Clara Street, Floor 3, during normal business hours. This report reveals that there are no previously recorded historic sites within the project area. One recorded historic site, CA-SCL-444H, is located within one-half mile of the project area. Although no significant cultural materials, prehistoric or historic, were noted during the surface reconnaissance, the project site is generally in a portion of San Jose which is well known for having numerous buried archaeological deposits. The excavation and earthmoving activities associated with development on the site could potentially impact subsurface human remains. In the event any resources are found during grading, their disturbance would be a significant impact.

**Mitigation Measure 5-1:** The project shall implement the following measure:

There shall be monitoring of site excavation activities to the extent determined by a qualified professional archaeologist to insure accurate evaluation of potential impacts to prehistoric resources.

- 1) If no resources are discovered, the archaeologist shall submit a report to the City's Environmental Principal Planner verifying that the required monitoring occurred and that no further mitigation is necessary.
- 2) If evidence of any archaeological, cultural, and/or historical deposits are found, hand excavation and/or mechanical excavation will proceed to evaluate the deposits for determination of significance as defined by CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the City's Environmental Principal Planner, describing the testing program and subsequent results. These reports shall identify any program mitigation that the Developer shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources.)

(Source: 8, 29)

c) **NO IMPACT.** The project site is located within a developed area and is not expected to impact unique paleontological or geographic features.  
(Source: 8, 11, 23)

d) **LESS THAN SIGNIFICANT IMPACT.** The site is located in an area of archaeological sensitivity as discussed in Item b of this section. The excavation and earthmoving activities associated with development on the site could potentially impact subsurface human

remains. In the event any resources are found during grading, their disturbance would be a significant impact.

**Standard Measure 5-2:** The project shall implement the following standard measure(s):

- Should evidence of prehistoric cultural resources be discovered during construction, work within 50 feet of the find shall be stopped to allow adequate time for evaluation and mitigation by a qualified professional archaeologist. The material shall be evaluated and if significant, a mitigation program including collection and analysis of the materials at a recognized storage facility shall be developed and implemented under the direction of the City's Environmental Principal Planner. A final report shall be submitted to the City's Environmental Principal Planner prior to release of a Certificate of Occupancy.
  
- As required by County ordinance, this project has incorporated the following guidelines. - Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

(Source: 8,11, 16)

**CONCLUSION.** Implementation of the proposed project would not have impact on cultural resources. **(Less than significant impact)**

<b>6. GEOLOGY AND SOILS</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>6. GEOLOGY AND SOILS</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) LESS THAN SIGNIFICANT IMPACT.** The San Francisco Bay Area is one of the most seismically active regions in the United States. The significant earthquakes that occur in the Bay Area are generally associated with earth movement along the well defined, active fault zones of the San Andreas Fault system, which regionally trends in a northwesterly direction. The subject site is not located in a designated Alquist-Priolo Earthquake Fault Zone (known formerly as a Special Studies Zone). According to the geotechnical investigation conducted for the project by Kleinfelder West, Inc. on July 26, 2007, the potential for liquefaction at the site is low due to the sufficient density of the materials at the depth of the groundwater. The nearest active faults are the Monte Vista-Shanna fault located 2.6 miles from the site and the San Andreas Fault, located approximately 7.5 miles from the site. The Sargent, Hayward, Calaveras, and Zayante-Vergeles faults are located approximately 9.3 miles, 9.9 miles, 12.4 miles and 13 miles from the site, respectively. Therefore, the potential for surface rupture or fault offset at the subject site would be considered remote. No impacts would occur as a result of the new project.

The project site and its surroundings may experience intense seismic ground shaking during the next major earthquake on the San Andreas, Hayward, Calaveras or other regional fault systems. The severity of seismic shaking at any given location depends on various factors, including earthquake magnitude, distance to the causative fault, depth to bedrock, physical characteristics of underlying soil and bedrock, and local topography. The San Andreas Fault, the Hayward Fault, and the Calaveras Fault would be the three faults most likely to produce intense seismic ground shaking in the project area. Given the geologic conditions of the region, the new project would not expose people or structures to any greater risks involving seismic ground shaking than would other projects located in a geologically similar setting.

While the potential for strong seismic ground shaking cannot be eliminated, adherence to the Uniform Building Code would mitigate such risk to the extent feasible. As required by the City of

San Jose building permit process, the proposed new development would be required to be designed and constructed in accordance with the current Uniform Building Code and other applicable standards and practices of earthquake resistant construction. The California Building Code requires that a qualified professional classify and evaluate soil conditions for design of building foundations at proposed building sites. This would reduce potential impacts from strong ground shaking to a level that is not considered substantial or adverse.

**Standard Measure 6-1:**

- The proposed structures on the site would be designed and constructed in conformance with the Uniform Building Code Guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking on the site.

(Source: 8, 11, 15, 19)

**b) LESS THAN SIGNIFICANT IMPACT.** The project will result in grading and construction activities on the site. The construction would involve grading and earth moving activities. These activities would expose underlying soils, which would increase the potential for soil erosion from wind or stormwater runoff. As part of the permitting process, any future developer of the site would be required to prepare an Erosion Control Plan and Storm Water Pollution Prevention Plan (SWPPP). These plans would identify applicable “best management practices” to eliminate erosion potential on the site and would be subject to the review and approval of the Public Works Department.

(Source: 15, 25)

**c) LESS THAN SIGNIFICANT IMPACT.** Conformance with Building Code standards, as described in the response to Checklist Item 6.a. and 6.b., above, would reduce potential impacts to a less than significant level.

(Source: 15, 25)

**d) LESS THAN SIGNIFICANT IMPACT.** According to the geotechnical investigation (Appendix A), the soils on the project site are of sufficient strength to support the planned structure, however, they contain significant amounts of gravel, which can be easily disturbed during the excavation process. The report therefore recommends recompaction of the materials exposed at the bottom of the mass excavation and at the bottom of the footing excavations. Conformance with these and the other design recommendations for foundations, earthwork, site drainage and pavements contained in Section 8 (“Recommendations”) of the report would reduce potential impacts to a less than significant level.

(Source: 19)

**e) NO IMPACT.** City sanitary sewer service would be provided to the project site for the proposed project. No septic tanks or alternative wastewater disposal systems would be used. Therefore, no impacts would occur as a result of the project.

(Source: 15, 25)

**CONCLUSION.** Implementation of the proposed project, in conformance with existing Building Code requirements, would not result in significant geological and soil impacts. (**Less than significant impact**)

7. HAZARDS AND HAZARDOUS MATERIALS				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) LESS THAN SIGNIFICANT IMPACT.** The proposed senior living project would not generate significant quantities of hazardous wastes. The City of San Jose sponsors a household hazardous waste disposal program that would be available to future residents of the complex. (Source: 9, 25)

**b) LESS THAN SIGNIFICANT IMPACT.**

There are two high pressure gas lines within South Bascom Avenue. One gas line is 6 inches in diameter with maximum allowable operating pressure (MAOP) of 60 PSI and is located approximate 67 feet away from the project property line. The other line is 10 inches in diameter with MAOP of 200 PSI and is located approximate 39 feet away from the project property line. These two gas lines provide distribution and transmission of natural gas. Construction in proximity to these pipelines should be performed in conformance with OSHA and PG&E standards to minimize the potential for injury and property damage.

**Standard Measure 7-1:** Any proposed grading and excavation activities in the vicinity of the gas lines shall conform to PG&E's requirements.

A Phase I and Limited Phase II Environmental Site Assessment (Appendix B-1) were performed for the site by Kleinfelder West, Inc. The assessment is entitled *Phase I/Limited Phase II Environmental Site Assessment Sunrise Assisted Living 2517 South Bascom Avenue, San Jose, California*, dated October 29, 2007, and is included in Appendix B of this Initial Study.

The project site has a history of agricultural use during the 1930s to the 1950s. While it is possible that environmentally persistent pesticides were applied to the site due to the historical agricultural use of the site, the Phase I and Limited Phase II site assessment conclude that organochlorine pesticides and CAM 17 were not detected at or above laboratory reporting limits.

The project site also has a history of gas station usage during 1974 to 1976. Three underground storage tanks located at the site were removed in 1977. Base on the result of the soil sample analysis, the Phase I and Limited Phase II site assessment conclude that petroleum contamination related to the former gas station on the site is not significant.

Based on the conclusions of the Phase I and Limited Phase II Environmental Site assessment conducted on the property, there will be less than significant impacts regarding the release of hazardous materials into the environment

**c) NO IMPACT.** There are no existing or proposed schools within one-quarter mile of the project site.  
(Source: 18, 25)

**d) LESS THAN SIGNIFICANT IMPACT.** As stated in the above section 7.a., a Phase I and Limited Phase II Environmental Site Assessment were prepared. The report included a records review to evaluate recognized environmental conditions of potential concern regarding the subject site and bordering properties. The records review was conducted by a commercial database service, Environmental Data Resources (EDR), and included databases of businesses and properties that handle hazardous materials or hazardous waste, or are the known location of a release of hazardous substances to soil or groundwater. The databases are published by various Federal, State and local agencies. According to the report, the project site is not currently included on any of the regulatory agency databases researched by EDR. The report indicated that there are fifteen other sites within 1 mile of the project site that are listed on regulatory agency databases.

As previously stated, the report also indicated that contamination due to petroleum and pesticides does not appear to be significant. Because of the minor releases of petroleum product (gasoline) that occurred during the removal of pipelines on September, 2007, the report recommended additional over-excavation in the areas where the releases took place.

An addendum to Phase I / Limited Phase II Environmental Site Assessment was prepared by Kleinfelder on November 30, 2007. This addendum documents the excavation of impacted soil in the area where releases occurred during removal of product lines at the site on September 17, 2007. Based on the analysis of the confirmation soil samples, the addendum concludes that the impacts from the minor releases have been mitigated and recommends no further actions with regard to petroleum hydrocarbons at the site. A copy of the addendum is included in Appendix B-2.

Since the project proposes an underground parking garage, the site will be over-excavated in conformance with the recommendations of the report.

Less than significant impacts will occur as a result of the future project.

(Source: 18, 27)

**e) NO IMPACT.** The project site is not located within an airport land use plan area and is not within two miles of a public airport or public use airport. Therefore, no impacts would occur as a result of the future project.

(Source: 8, 25)

**f) NO IMPACT.** The project site is not located in the vicinity of a private airstrip. Therefore, no impacts would occur as a result of the project.

(Source: 8, 25)

**g) NO IMPACT.** The proposed project would not impair or physically interfere with the implementation of an adopted emergency response or emergency evacuation plan. No impacts would occur as a result of the project.

(Source: 11, 25)

**h) LESS THAN SIGNIFICANT IMPACT.** The project site will be required to meet fire regulations with regard to onsite hydrants and fire suppression systems. Therefore, less than significant impacts would occur as a result of the project.

(Source: 10, 25)

**CONCLUSION.** Implementation of the proposed project with mitigation would not result in significant hazards or hazardous materials impacts. **(Less than significant impact)**

<b>8. HYDROLOGY AND WATER QUALITY</b>					
		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>					
a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>8. HYDROLOGY AND WATER QUALITY</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Be subject to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) LESS THAN SIGNIFICANT.** The proposed project would be subject to the City's requirements for erosion and sediment control and stormwater quality controls for both construction and post-construction phases.

New development in San Jose is subject to the conditions of the City's NPDES Permit, which was reissued by the Regional Water Quality Control Board in February 2001, with a revision of Provision C.3 (New and Redevelopment Performance Standards) approved in October 2001. Provision C.3 was amended to enhance performance standards for new development and redevelopment projects. Under the amended Provision C.3, the City must now 1) require that certain sizes of new and redevelopment projects include storm water treatment measures; 2) ensure that the treatment measures be designed to treat an optimal volume or flow of storm water



runoff from the project site; and 3) ensure that storm water treatment measures are properly installed, operated and maintained.

The City has developed two Policies that implement Provision C.3 of the NPDES Permit. The Post Construction Urban Runoff Management Policy requires new development projects to include specific measures for improving the water quality of urban runoff to the maximum extent practicable. The Post-Construction Urban Runoff Management Policy establishes general guidelines and minimum Best Management Practices (BMPs) for specified land uses, and includes the requirement of regular maintenance to ensure their effectiveness. Implementation of these measures would reduce potential impacts related to water quality standards or waste discharge requirements to less than significant levels.

Implementation of the following standard measures, consistent with NPDES Permit requirements, will reduce potential construction impacts to surface water quality to less than significant levels:

**Construction Measures:**

**Standard Measure 8-1:** The project shall incorporate Best Management Practices (BMPs) into the project to control the discharge of stormwater pollutants including sediments associated with construction activities. Examples of BMPs are contained in the publication *Blueprint for a Clean Bay*. Prior to the issuance of a grading permit, the applicant may be required to submit an Erosion Control Plan to the City Project Engineer, Department of Public Works, Room 308, 801 North First Street, San Jose, California 95110-1795. The Erosion Control Plan may include BMPs as specified in ABAG's *Manual of Standards Erosion & Sediment Control Measures* for reducing impacts on the City's storm drainage system from construction activities. For additional information about the Erosion Control Plan, the NPDES Permit requirements or the documents mentioned above, please call the Department of Public Works at (408) 535-8300.

**Standard Measure 8-2:** Prior to the commencement of any clearing, grading or excavation, the project shall comply with the State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Construction Activities Permit as follows:

- The applicant shall develop, implement and maintain a Storm Water Pollution Prevention Plan (SWPPP) to control the discharge of stormwater pollutants including sediments associated with construction activities;
- The applicant shall file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB).

**Standard Measure 8-3:** The project applicant shall comply with the City of San Jose Grading Ordinance, including erosion and dust control during site preparation and with the City of San Jose Zoning Ordinance requirements for keeping adjacent streets free of dirt and mud during construction. The following specific BMPs will be implemented to prevent stormwater pollution and minimize potential sedimentation during construction:

- Restriction of grading to the dry season (April 15 through October 15);
- Utilize on-site sediment control BMPs to retain sediment on the project site;
- Utilize stabilized construction entrances and/or wash racks;
- Implement damp street sweeping;
- Provide temporary cover of disturbed surfaces to help control erosion during construction;

- Provide permanent cover to stabilize the disturbed surfaces after construction has been completed.

**Post-Construction Measures:**

**Standard Measure 8-4:** Prior to the issuance of a Planned Development Permit, the applicant must provide details of specific Best Management Practices (BMPs), including, but not limited to, bioswales, disconnected downspouts, landscaping to reduce impervious surface area, and inlets stenciled “No Dumping – Flows to Bay” to the satisfaction of the Director of Planning, Building and Code Enforcement.

**Standard Measure 8-5:** The project shall comply with Provision C.3 of NPDES permit Number CAS0299718, which provides enhanced performance standards for the management of stormwater of new development.

**Standard Measure 8-6:** The project shall comply with applicable provisions of the following City Policies – 1) Post-Construction Urban Runoff Management Policy (6-29) which establishes guidelines and minimum BMPs for all projects and 2) Post-Construction Hydromodification Management Policy (8-14) which provides for numerically sized (or hydraulically sized) TCMs.

(Source: 11, 13, 25)

**b) LESS THAN SIGNIFICANT IMPACT.** The proposed project would not directly withdraw groundwater from the site. Rather, the San Jose Water Company would provide domestic water service to the site. Water demand associated with the proposed development on the site would be considered minor and would not require a substantial increase in groundwater pumping. The site is not in a designated recharge zone, and would therefore not interfere with the recharge of groundwater. Less than significant impacts would occur as a result of the project.

(Source: 13, 26)

**c) LESS THAN SIGNIFICANT IMPACT.** There are no waterways on-site that would be altered as a result of the project. However, any future development of the site would be subject to a General Construction Permit issued by the State Water Resources Control Board for storm water discharges associated with construction activity. The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which must identify Best Management Practices (BMPs) to reduce pollutants (including erosion and siltation) in storm water discharges from construction activities. Compliance with the General Construction Permit, preparation of the SWPPP, and implementation of the City’s BMPs for stormwater pollution prevention would reduce potential erosion and siltation impacts to a less than significant level. Therefore, impacts related to erosion and siltation would be considered less than significant.

**Post Construction Urban Runoff Management:** Future development will include new paving and building rooftops which will increase the amount of impervious surface on the site and ultimately increase pollutants resulting from nonpoint sources in stormwater runoff. In conformance with the specifications of the City Council Policy No. 6-29, Post Construction Urban Runoff Management Policy, the project includes source control, site design and treatment control measures to reduce runoff and associated pollutants. Source control measures include covered dumpsters, and connecting the parking garage floor drains to the sanitary sewer. Site design measures include the extensive use of landscaping in open space and setback areas. Treatment controls proposed with the project consist of a manhole-configured media filter device, which will treat roof and hardscape runoff from the project on site, prior to its discharge to the

City storm drain system. Due to the project site's location in the watershed, the project is not required to provide hydromodification management measures.

(Source: 13, 15, 25)

<b>PERVIOUS AND IMPERVIOUS SURFACES COMPARISON</b>						
	<b>Existing Condition (sqft)</b>	<b>%</b>	<b>Proposed Condition (sqft)</b>	<b>%</b>	<b>Difference (sqft)</b>	<b>%</b>
<b>Site (acres):</b>	<b>Site (sqft):</b> 21,871	100	21,871	100	0	0
Building Footprint(s)	0	0	14,588	67	14,588	67
Parking	0	0	1,702	8	1,702	8
Sidewalks, Patios, Paths, etc.	0	0	3,147	14	3,147	14
Landscaping	0	0	2,434	11	2,434	11
<b>Total</b>	<b>21,871</b>		<b>21,871</b>			
Impervious Surfaces	0	0	19,437	89	19,437	89
Pervious Surfaces	21,871	100	2,434	11	-19,437	-89
<b>Total</b>	<b>21,871</b>		<b>21,871</b>			

**d) LESS THAN SIGNIFICANT IMPACT.** As previously stated, there are no waterways on the site that would be altered as a result of the project. However, construction of the proposed development would temporarily and/or permanently alter existing drainage patterns on the site, and could potentially increase the site's impervious surface area, resulting in an incremental increase in runoff from the site. The project will include the construction of an adequately sized on-site storm drainage collection system. The system will be designed to control on-site and off-site flooding. In addition, the project would be required to conform to the City's Post-Construction Urban Runoff Management Policy.

(Source: 13, 25)

**e) LESS THAN SIGNIFICANT IMPACT.** As discussed above, on-site construction can cause erosion and sedimentation, and post-construction residential development on the site could potentially create sources of polluted runoff from vehicle traffic and parking, roofing materials, landscape maintenance, use and storage of household hazardous materials, and other activities associated with residential use. Conformance to the NPDES Permit requirements through the City's grading permit process would reduce potential erosion and sedimentation impacts to less than significant levels. The project will conform to be City's Post-Construction Urban Runoff Management Policy to control pollutants from the developed project. The project will includes site design measures and permanent stormwater treatment control such as disconnected downspouts and media filters.

Storm sewer facilities are available to serve future development. There are existing City storm drain lines in South Bascom Avenue and Surrey Place. Prior to Public Works Clearance, the capacity of these facilities will be analyzed by the San Jose Department of Public Works. All public storm drain facilities will be improved, as determined to be necessary, to the satisfaction of the Director of Public Works to ensure that there is adequate capacity to accommodate runoff generated from the project site.

(Source: 13, 15, 25)

**f) NO IMPACT.** There are no other identified potential impacts to water quality from the project.  
(Source: 13, 15, 25)

**g) NO IMPACT.** The project site is not located within a 100-year flood hazard area.  
(Source: 17, 25)

**h) NO IMPACT.** The project site is not located within a flood zone.  
(Source: 17, 25)

**i) NO IMPACT.** There are no levees or dams in the vicinity of the site that would impact the project.  
(Source: 8, 25)

**j) NO IMPACT.** The project site is not located in an area subject to seiche, tsunami or mudflow. Therefore, no impacts would occur.  
(Source: 8, 25)

**CONCLUSION.** Implementation of the proposed project, in conformance with NPDES Permit and Post-Construction Urban Runoff Management Policy requirements, would not result in significant hydrology and water quality impacts. **(Less than significant impact)**

<b>9. LAND USE AND PLANNING</b>		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) NO IMPACT.** Projects that have the potential to physically divide an established community are typically exemplified by; new freeways and highways, major arterial streets, and railroad lines. Conformance with Urban Design policies and the City's Residential Design Guidelines will ensure future will not only be compatible, but should provide an enhancement to the surrounding urban land uses. Therefore, proposed project would not physically divide an established community. Less than significant impacts would occur as a result of the project.  
(Source: 8, 11, 16)

**b) LESS THAN SIGNIFICANT IMPACT.** The existing General Plan Land Use designation of this project site is General Commercial and the site is currently zoned Commercial

Pedestrian District (CP). According to Zoning Ordinance, the proposed residential use would be allowed within the CP district under a Conditional Use Permit (CUP). Because the CP zoning district conforms to the existing General Plan designation of General Commercial, the proposed CUP project would be considered to be consistent with the General Plan. *{Source: 11, 16}*

c) **NO IMPACT.** As noted in the response to Checklist Item 4.f, the project site is not located within the boundaries of an adopted Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, no impacts would occur as a result of the future project.  
*(Source: 8, 11)*

**CONCLUSION.** Implementation of the proposed project, which is consistent with the existing General Plan, would not result in significant land use impacts. **(Less than significant impact)**

<b>10. MINERAL RESOURCES</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **NO IMPACT.** Pursuant to the mandate of the Surface Mining and Reclamation Act of 1975, the State Mining and Geology Board has designated the Communications Hill Area of San Jose as containing mineral deposits of regional significance. Neither the State Geologist nor the State Mining and Geology Board has classified any other areas in San Jose as containing mineral deposits that are either of statewide significance, or the significance of which requires further evaluation. The subject project site is not located in the Communications Hill Area. Therefore, the project would not result in significant mineral resource impacts.  
*(Source: 11)*

b) **NO IMPACT.** Other than the Communications Hill Area, the City of San Jose 2020 General Plan does not identify any locally important mineral resources within the City of San Jose. Therefore, the project would not result in impacts related to locally important mineral resources  
*(Source: 11)*

**CONCLUSION.** Implementation of the proposed project would not result in significant mineral resource impacts. **(No impact)**

**11. NOISE**

<b>Would the project result in:</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.** An Environmental Noise Assessment was performed for the project by Charles M. Salter Associates Inc. The purpose of the study, dated January 23, 2008, was to quantify the existing noise environment at the project site, compare the noise environment with applicable City and State standards, and propose conceptual mitigation, as necessary. The study included the results and comparison of long-term and short-term noise measurements taken at the site. The study assumed a 1 to 2-decibel increase in future traffic noise in the area. The following discussion summarizes the findings and conclusions of the study, a copy of which is included in Appendix D of this Initial Study.

The City of San Jose Noise Element of the General Plan states that the City's acceptable noise level objectives are 55 DNL as the long-range exterior noise quality level, 60 DNL as the short-range exterior noise quality level, 45 DNL as the interior noise quality level. The Land Use Compatibility Guidelines for Multi-Family Residential Development contained in the Noise Element indicate that a DNL of 60 dB or lower is considered "satisfactory" for residential projects. Projects located in areas with an existing DNL higher than 60dB therefore require sound attenuation, which should be incorporated into the building design, generally consisting of sound rated windows and walls, to mitigate interior noise to DNL 45 dB or lower. Outdoor activities are limited to acoustically protected areas or entirely indoors if the DNL exceeds 70 dB.

**Exterior Noise Levels.** The study concluded that noise levels will range from below 60dBA in the southwestern and portion of the site to DNL 71 dBA along South Bascom Avenue. The noise levels in the staff break area in the southern portion of the site, in the landscape areas in the western portion of the site, and at elevated balconies in the middle of the western façade are approximately DNL 60 dB or less, which is consistent with the City's exterior noise goal. Therefore, no mitigation is required.

Mechanical systems will include an emergency generator and garage exhaust fan, which will be located in the underground parking garage. Mechanical equipment shall conform to the City's Zoning Ordinance, except upon issuance and in compliance with a Conditional Use Permit (Muni Code Section 20.40.600 B).

The estimated future noise level at third and fourth floor balconies along South Bascom Avenue is approximately 72 dB due to roadway traffic. The following Mitigation Measure is expected to reduce noise to levels to below 70 dB to meet the City outdoor noise requirements.

**Mitigation Measure 11-1:** The project shall incorporate partial-height noise barriers that block the line of sight between the roadway and residents at third and fourth floor balconies along South Bascom Ave. The effective barriers would be approximately 42-inches or taller, be solid from bottom to top with no cracks or gaps, and have a minimum surface density of 3 pounds per square foot as stated in the report prepared by Charles M. Salter Associates Inc., dated January 23, 2008. Details should be determined during the design phase.

**Standard Measure 11-2:** Post-construction mechanical equipment shall conform to the City's General Plan limitations of 55DNL at residential property lines and 60DNL at commercial property lines.

The report also concludes that mitigation measures should be incorporated to reduce noise from garage exhaust fans, the emergency generator, air conditioning units, and other stationary equipment to limits outlined in the General Plan and Zoning Ordinance. These mitigation measures should include equipment selection, location, and equipment enclosures. Details should be determined during the design phase of the project.

**Interior Noise Levels.** In order to meet the indoor criteria of DNL 45 dB or less, the exterior facades of some units should be sound-rated. The detail of the sound-rated construction must be determined during the design phase. The following Mitigation Measure is expected to reduce noise to levels that meet the City's indoor noise requirements.

**Mitigation Measure 11-3:** The project shall be constructed in conformance with the STC rating recommendations for windows and doors as contained in the report prepared by Charles M. Salter Associates Inc., dated January 23, 2008 and to the satisfaction of the Director of Planning, Building and Code Enforcement. Including the following:

- STC 28 sound rated windows and exterior doors and door assemblies are required. Dual-pane windows are required for windows closest to South Bascom Ave. Not all units will require sound rated windows, prior to issuance of building permits, the developer shall retain a qualified acoustical consultant to check the building plans for all units will to ensure that interior noise levels can be sufficiently attenuated to 45 DNL.

- All units shall be equipped with forced air ventilation systems to allow the occupants the option of maintaining the windows closed to control noise, and maintain an interior noise level of 45 DNL.

(Source: 11, 28)

**b) LESS THAN SIGNIFICANT IMPACT.** Residential uses, as proposed, do not typically generate excessive amounts of groundborne vibration or noise levels, and there are no excessive groundborne vibration or noise levels existing in the vicinity of the project site. Therefore the project impacts would be less than significant.

(Source: 28)

**c) LESS THAN SIGNIFICANT IMPACT.** Traffic generated by the project would contribute to future noise levels in the vicinity of the project. The noise study prepared for the project calculated an increase in the DNL of approximately 1 to 2 dB, due to estimated project traffic volumes and the effect of background noise from surrounding roads. This increase would not be considered significant.

(Source: 28)

**d) LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.** The proposed project would result in temporary construction noise impacts; however, these would be considered temporary and would be reduced to less than significant levels by the implementation of the following standard construction noise mitigation measures.

**Mitigation Measure 11-2:** The following measures shall be implemented by the project developer and/or construction site supervisor to reduce potential construction noise impacts to surrounding neighbors:

- Notify neighbors of the schedule and type of equipment used for each phase of construction;
- Construction will be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for any on-site or off-site work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific construction noise mitigation plan and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses.
- Locate noisy stationary equipment (i.e., generators or compressors) away from neighboring residences;
- Require that all construction equipment be in good working order and that mufflers be inspected for proper functioning;
- Require that vehicles and compressors turn off engines when not in use;
- Locate stationary noise generating equipment as far as possible from sensitive receptors. Staging areas shall be located a minimum of 200 feet from noise sensitive receptors, such as residential uses.
- Utilize available noise suppression devices and techniques as appropriate, in conformance with General Plan policy; and
- Designate a construction noise coordinator who would be available to respond to complaints from neighbors and take appropriate measures to reduce noise.

(Source: 11, 17, 28)

**e) NO IMPACT.** The project site is not located within an airport land use plan area and is not within two miles of a public airport or public use airport. Therefore, no impacts would occur as a result of the future project.



(Source: 11, 17, 28)

**f) NO IMPACT.** The project site is not located within the vicinity of a private airstrip. Therefore, no impacts would occur as a result of the project.

(Source: 11)

**CONCLUSION.** Implementation of the proposed project would not result in significant noise impacts with the implementation of the required Noise Mitigation Measures. **(Less than significant impacts with mitigation)**

<b>12. POPULATION AND HOUSING</b>				
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) LESS THAN SIGNIFICANT IMPACT.** The proposed CUP would not induce substantial population growth because it proposes 69 senior living units with a total of 82 beds. The project would not create a significant demand for new infrastructure in an area where infrastructure is not available. Less than significant impacts would occur as a result of the project.

(Source: 8, 25)

**b) NO IMPACT.** The project site is vacant. Therefore, no impacts would occur as a result of the future project.

(Source: 8, 25)

**c) NO IMPACT.** Refer to the response to Checklist Item 12.b.

(Source: 8, 25)

**CONCLUSION.** Implementation of the project would not result in population and housing impacts. **(Less than significant impact)**

**13. PUBLIC SERVICES**

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project result in:</b>					
Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a)	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) LESS THAN SIGNIFICANT IMPACT.** The project site would be served by the City of San Jose Fire Department. The Department has a performance standard to maintain a four-minute average response time to all emergency calls in the City. Fire Station 4, which is located at 710 Leigh Ave, approximately 3.2 miles south of the site (driving distance), would provide initial response to the site. The project would not result in substantial adverse physical impacts associated with a need for new facilities in order to maintain acceptable levels of service or performance objectives.

(Source: 10, 25)

**b) LESS THAN SIGNIFICANT IMPACT.** As with fire protection, the project would result in a minor increase in the demand for police services. The project site is located adjacent to existing residential developments currently served by the City Police Department. The project would not result in substantial adverse physical impacts associated with a need for new facilities in order to maintain acceptable levels of service or performance objectives.

(Source: 8, 25)

**c) NO IMPACT.** The project would result in a minor increase in the City's population. However, the proposed residents will be senior citizens and will not impact the City schools.

(Source: 20, 25)

**d) LESS THAN SIGNIFICANT IMPACT.** The City provides developed park lands, open space and community facilities, some of which are supplemented by other public uses such as school playgrounds and play fields, County parks, and trail facilities on Santa Clara Valley Water District lands. The City's Departments of Parks, Recreation and Neighborhood Services, Public Works, and General Services are responsible for the design, construction, maintenance and operation of all City park and recreation facilities. The City has adopted a Parkland Dedication Ordinance (PDO) and a Park Impact Ordinance (PIO), which require residential developers to

dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing development projects.

Section 14.25.600 of the San Jose Municipal Code allows residential care facilities for the elderly to be eligible to defer the obligation to pay park impact fees. It is anticipated that the project will meet the eligibility requirements of this Section. Less than significant impacts to park lands, open space and community facilities are anticipated.

(Source: 26)

**e) LESS THAN SIGNIFICANT IMPACT.** The subject project site is located within an existing urban community that is currently serviced by existing public services and utilities, including gas, electrical, telephone, and cable. Development of the proposed project would result in a minor increase in the demand for these services and utilities. However, the minor increase would not result in significant impacts, since the existing services and utilities are currently located at or near the site. Therefore, less than significant impacts would occur as a result of the project.

(Source: 8, 25, 25)

**CONCLUSION.** Development of the proposed project would not result in public services impacts. **(Less than significant impact)**

14. RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) LESS THAN SIGNIFICANT IMPACT.** See response to Checklist Item 13.d. (Parks), above.

(Source: 25, 26)

**b) LESS THAN SIGNIFICANT IMPACT.** See response to Checklist Item 13.d. (Parks), above.

(Source: 25, 26)

**CONCLUSION.** Development of the proposed project would not result in significant recreation impacts. **(Less than significant impact)**

**15. TRANSPORTATION/TRAFFIC**

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a-b) LESS THAN SIGNIFICANT IMPACT.** The City of San Jose Public Works Department has prepared a traffic study to analyze the potential impacts of the project in accordance with the standards set forth by the City of San Jose Level of Service policy and the Santa Clara Valley Transportation (VTA) Congestion Management Program (CMP). The study determined that the proposed project would not affect existing Levels of Service of the surrounding street system, therefore would have a less than significant impact.  
(Source: 12, 25)

**c) NO IMPACT.** The project would not have any impact on air traffic. No impacts would occur as a result of the project.  
(Source: 12, 25)

**d) LESS THAN SIGNIFICANT IMPACT.** The project will be designed in conformance with City standards. Due to the low volumes of traffic generated and City-standard street designs, dangerous street conditions are not anticipated.  
(Source: 12, 25)

e) **NO IMPACT.** Since the distance from the curbs of Surrey Place and South Bascom Avenue to the edge of the proposed building is less than 150 feet, fire truck access is not required across the site. Therefore, no impacts would occur as a result of the project.  
(Source: 25)

f) **LESS THAN SIGNIFICANT IMPACT.** For a residential care facility, the San Jose Zoning Ordinance requires the provision of 1 parking space for the first 6 client beds, 1 space for every 4 beds after the first 6, and 1 space per employee. Based on the proposed facility that has 82 beds and 20 employees per shift, the Ordinance requirement would be 40 spaces. The proposed site plan has a maximum number of 36 spaces, which is less than the Ordinance requirement.

Section 20.90.220(C) of the Ordinance states that a reduction in the off-street parking for specified uses, including residential care/service facilities and senior housing uses, may be approved with a Development Permit provided that such approval is based on the following findings:

- 1) The number of off-street parking spaces provided in such parking facilities adequately meets the parking requirements of the individual buildings and uses as specified in this Chapter 20.90 of this title;
- 2) It is reasonably certain that the parking facility shall continue to be provided and maintained at the same location for the service of the building or use for which such facility is required, during the life of the building or use; and
- 3) The parking facility is reasonably convenient and accessible to the buildings or uses to be served.

The project, as proposed, is consistent with Findings #2 and #3, above, as the proposed parking is provided in an underground garage that is a structural component of the residential building, and would only serve the facility. An elevator provides secure access to the ground and upper floors of the building.

A study entitled *Assisted Living Residences: A Study of Traffic & Parking Implications*, prepared by the American Seniors Housing Association, is attached to a letter provided by the project applicant, included in Appendix C (Parking Reduction Analysis). The study indicated that assisted living resident vehicles do not contribute measurably to parking needs because those residents do not drive due to their physical and cognitive limitations. In addition, the residents have access to public transportation and the facilities provide scheduled transportation via a van or company bus. The proposed project is located in close proximity to public transit on Bascom Avenue, adjacent to the site. The study and additional analysis of other facilities operated by the project applicant described in the letter provide additional support for Finding #1, above.

Less than significant impacts will occur as a result of this project. (Source: 16, 25, 30)

g) **NO IMPACT.** The project will comply with all City and County policies regarding alternative transportation. No impacts would occur as a result of the project.  
(Source: 25)

**CONCLUSION.** Development of the proposed project would not result in significant transportation impacts. (**Less than significant impact**)

<b>16. UTILITIES AND SERVICE SYSTEMS</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) NO IMPACT.** The future project would be subject to all wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board. The project is not expected to exceed any such requirements. Therefore, no impacts would occur as a result of the project.

(Source: 11, 25)

**b) LESS THAN SIGNIFICANT IMPACT.** The San Jose Water Company (SJWC) provides water services to the project site. The SJWC water supply is treated at two SJWC water treatment plants and several Santa Clara Valley Water District (SCVWD) water treatment plants. The proposed residential project would result in a minor increase in the demand for treated drinking water. It is anticipated that the existing water treatment facilities of the SJWC and the SCVWD would have adequate capacity to serve the project. Therefore, the proposed project would not require or result in the construction of new water treatment facilities or the expansion of existing facilities. Less than significant impacts would occur as a result of the project.

There are existing City of San Jose sanitary sewers in the project vicinity that are available to serve the project. The project will connect to an existing sewer line located in South Bascom Avenue and Surrey Place.

The San Jose/Santa Clara Water Pollution Control Plant would provide wastewater treatment services for the project. The project would result in a minor increase in the demand for sewer treatment services. The existing wastewater treatment facility would have the capacity to adequately serve the project, therefore, the project would not require or result in the construction or expansion of a wastewater treatment facility and less than significant impacts would occur as a result of the project.

(Source: 9, 11, 25)

c) **LESS THAN SIGNIFICANT IMPACT.** The project site is located in a developed area containing existing City of San Jose storm drain lines. There is an existing 10-inch storm drain line located in South Bascom Avenue and Surrey Place, adjacent to the site, which is available to serve the project. However, the project developer will be responsible for providing the necessary infrastructure improvements to accommodate stormwater drainage from the site, in conformance with City policy, including potentially upsizing the existing storm main. In addition, the proposed on-site storm drainage facilities will be required to be designed to meet the specifications and requirements of the City of San Jose Public Works Department. Less than significant impacts would result.

(Source: 15, 25)

d) **LESS THAN SIGNIFICANT IMPACT.** Refer to the Response to Checklist Item 16.b. The project would receive domestic water service from the San Jose Water Company. The water demand associated with the project would be minor and would not require San Jose Water Company to obtain additional water sources or entitlements. Less than significant impacts would occur as a result of the project.

(Source: 15, 25)

e) **NO IMPACT.** As noted in the response to Checklist Item 16.b, the San Jose/Santa Clara Water Pollution Control Plant would provide wastewater treatment services to the project. The facility has a treatment capacity of 167 million gallons per day. The facility currently operates at approximately 80 percent capacity, processing an estimated 134 million gallons per day (dry weather peak). The project would result in a minor increase in the demand for wastewater treatment services. The existing wastewater treatment facility would have the capacity to adequately serve the project, therefore no impacts would occur as a result of the project.

(Source: 9, 25)

f) **LESS THAN SIGNIFICANT IMPACT.** According to the Source Reduction and Recycling Element prepared for the City of San Jose and the County-wide Integrated Management Plan, there is sufficient landfill capacity to meet the solid waste disposal demands of Santa Clara County for at least 30 more years. The amount of waste generated by the project would not be considered substantial. Therefore, less than significant impacts would occur as a result of the future project.

(Source: 9, 25)

g) **NO IMPACT.** The proposed residential project would not create the need for any special solid waste disposal handling. The City's Household Hazardous Waste Program will be available to the future residents. The project will comply with the applicable City recycling program requirements. Therefore, no impacts would occur as a result of the project.

(Source: 9, 25)

**CONCLUSION.** Implementation of the proposed project would not result in utilities and service system impacts. **(Less than significant impact)**

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**17. MANDATORY FINDINGS OF SIGNIFICANCE**

*NOTE: If there are significant environmental impacts that cannot be mitigated and no feasible project alternatives are available, then complete the mandatory findings of significance and attach to this initial study an appendix. This is the first step for starting the environmental impact report (EIR) process.*

<b>Does the project:</b>	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) LESS THAN SIGNIFICANT IMPACT.** The proposed CUP to allow 69 units of senior apartments on the site would result in a less than significant change in the on-site environment. There are no structures on the currently-vacant site, and there is no evidence of prehistoric resources on the site.

**b) LESS THAN SIGNIFICANT IMPACT.** When considered in combination with the effects of past projects, current projects, and probable future projects, the incremental impacts of the project would be insubstantial. As discussed in the response to Checklist Item 3.c., above, the project would be consistent with the Growth Management and Housing Major Strategies of the City's General Plan, and with the Residential Land Goal and Policies. As discussed in the



response to Checklist Items 3.c and 9.b, above, the proposed development project would be consistent with the City's General Plan. Therefore, the overall incremental contribution of the future project to cumulative impacts would be less than significant.

c) **NO IMPACT.** No physical environmental issue areas where substantial adverse effects on human beings, either directly or indirectly, have been identified for the project. Therefore, no impacts would occur as a result of the project.



**SECTION IV.  
REPORT AUTHORS AND CONSULTANTS**

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**SECTION V.  
REPORT REFERENCES**

1. Association of Bay Area Governments, *Projections 2002*, 2002.
2. Association of Bay Area Governments, *Projections 2003*, 2003.
3. Bay Area Air Quality Management District, *BAAQMD CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans*, April 1996, revised December 1999.
4. Bay Area Air Quality Management District, *Bay Area 2000 Clean Air Plan*, December 20, 2000.
5. California Dept. of Conservation, Division of Land Resource Protection, *Santa Clara County Important Farmland 2000*, 2001.
6. California Department of Toxic Substances Control, DTSC's Hazardous Waste and Substances Site List (Cortese List),  
[http://www.dtsc.ca.gov/database/Calsites/Cortese\\_List.cfm?county=43](http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm?county=43)
7. California Office of the State Fire Marshal, Pipeline Safety Division, Final Report of Kinder Morgan LS-16 Walnut Creek Accident, July 6, 2005,  
<http://osfm.fire.ca.gov/pipelinehome.html>
8. Site assessments/visit by HMM Engineers, dated on September 20, 2007.
9. City of San Jose Environmental Services Department, <http://www.sjrecycles.org/>.
10. City of San Jose, Fire Department website, [http://www.sjfd.org/sta\\_location.htm](http://www.sjfd.org/sta_location.htm).
11. City of San Jose, *Focus on the Future San Jose 2020 General Plan*, adopted August 16, 1994, as amended through 2006.
12. City of San Jose, *Interim Guidelines for Traffic Impact Analysis of Land Developments*, June 1994.
13. City of San Jose, *Post-Construction Urban Runoff Management Policy*, October 7, 2003.
14. City of San Jose Public Works Department, *Geologic Hazard Maps*.
15. City of San Jose, Public Works Department website,  
[http://www.sanjoseca.gov/gis/pub\\_wrks/mapbook/plot.asp?file=San99A](http://www.sanjoseca.gov/gis/pub_wrks/mapbook/plot.asp?file=San99A).
16. City of San Jose, *Title 20 of the San Jose Municipal Code (Zoning Ordinance)*, as amended December 2002.
17. FEMA website, <http://mapserver2.esri.com/cgi-bin/hazard.adol?z=&cgd=&c=san+jose&st=California&cd=g&s=0>

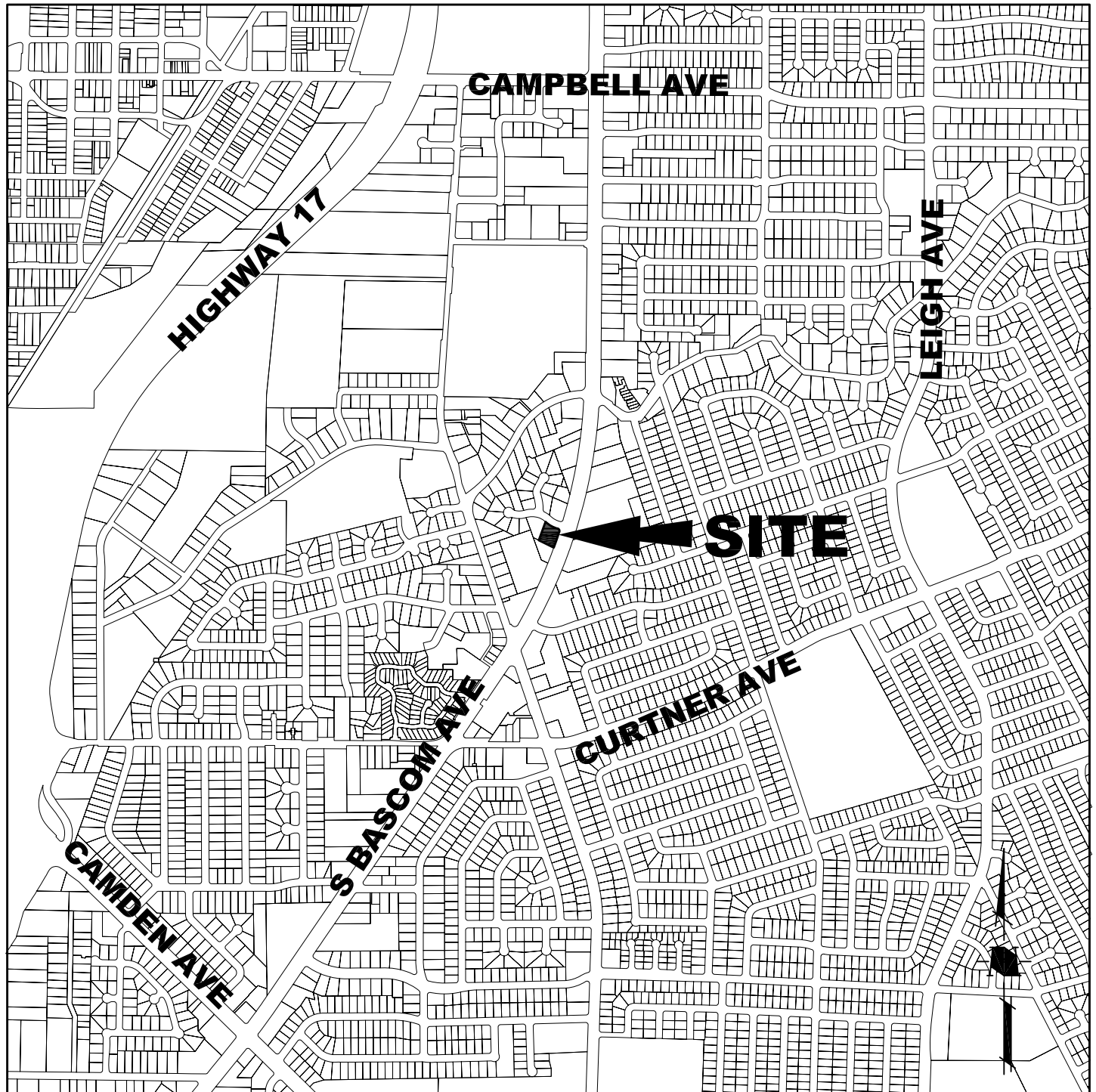
18. Kleinfelder West, Inc., *Phase I/Limited Phase II Environmental Site Assessment Sunrise Assisted Living 2517 South Bascom Avenue, San Jose, California*, dated October 29, 2007.
19. Kleinfelder West, Inc., *Geotechnical Investigation Sunrise Assisted Living Center*, dated July 26, 2007.
20. Santa Clara County Office of Education website, <http://www.sccoe.org/depts/dbas/>.
21. Santa Clara Valley Transportation Agency (website),  
[http://www.vta.org/schedules/vta\\_county\\_map\\_jan\\_2004.pdf](http://www.vta.org/schedules/vta_county_map_jan_2004.pdf)
22. Santa Clara Valley Urban Runoff Pollution Prevention Program, *NPDES Permit Order*
23. Santa Clara County Planning Web Site, [www.sccgov.org/portal/site/planning](http://www.sccgov.org/portal/site/planning)
24. City of San Jose Permits Web Site, [www.sjpermits.org](http://www.sjpermits.org)
25. HMH Engineers, *Conditional Use Permit for Senior Sunrise Living*, December 6, 2007.
26. City of San Jose, *Title 14 of the San Jose Municipal Code*, City of San Jose Web Site, <http://www.municode.com/Resources/gateway.asp?pid=14367&sid=5> .
27. Kleinfelder West, Inc., *Addendum to Phase I/Limited Phase II Environmental Site Assessment Sunrise Assisted Living 2517 South Bascom Avenue, San Jose, California*, dated November 30, 2007.
28. Charles M. Salter Associates, Inc., *Sunrise Senior Living of San Jose Surrey Place an South Bascom Avenue Environmental Noise Assessment San Jose, California*, dated January 23, 2008.
29. Archaeological Resource Management, *Cultural Resource Evaluation of the Project at 2517 South Bascom in the City of San Jose*, dated January 22, 2008.
30. Sunrise Senior Living, Inc., *Parking Reduction Analysis Letter*, dated January 31, 2008.

## EXHIBITS

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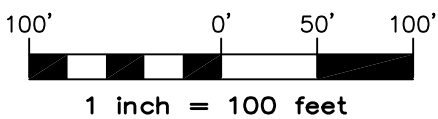
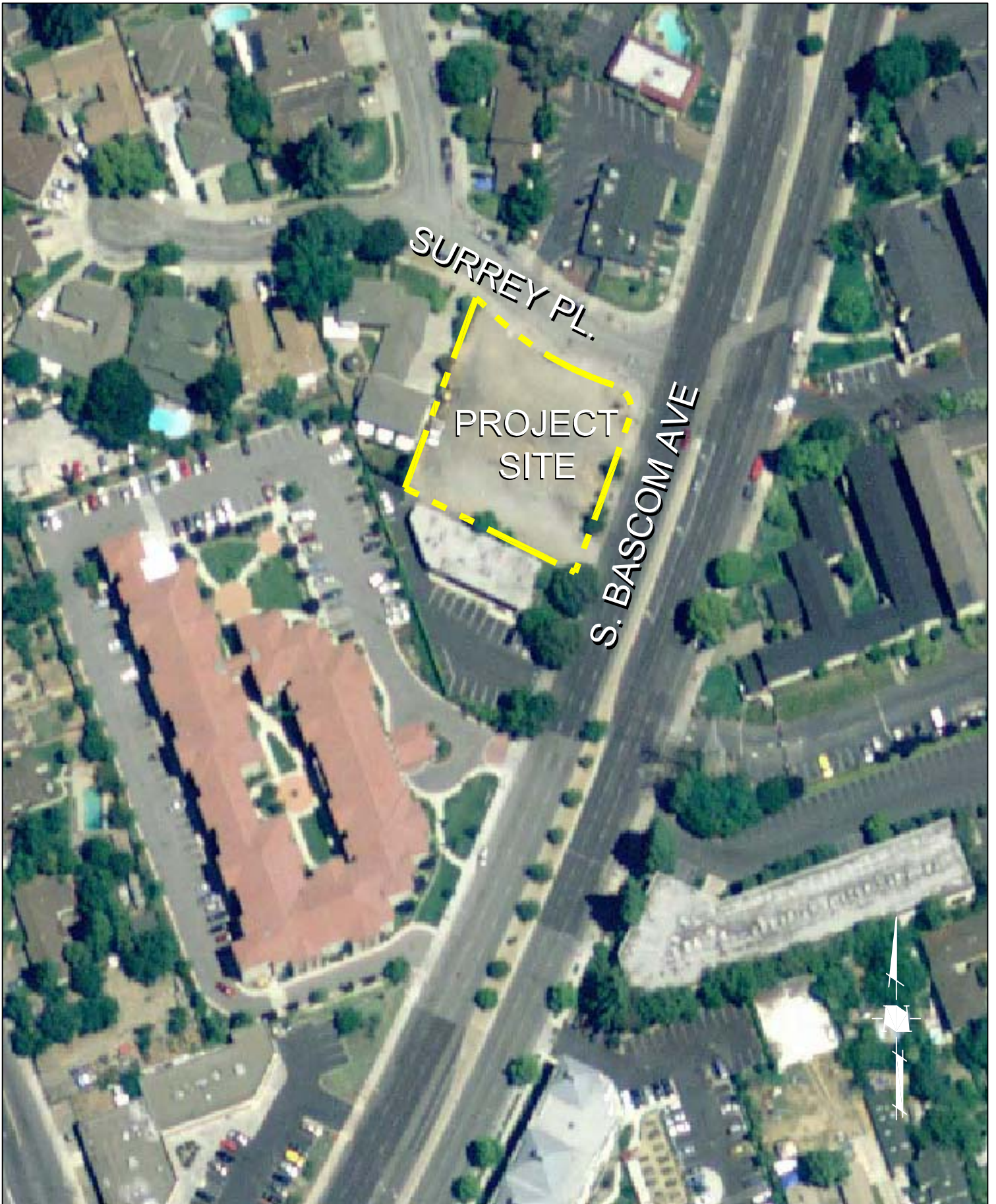




**EXHIBIT 1: VICINITY MAP**

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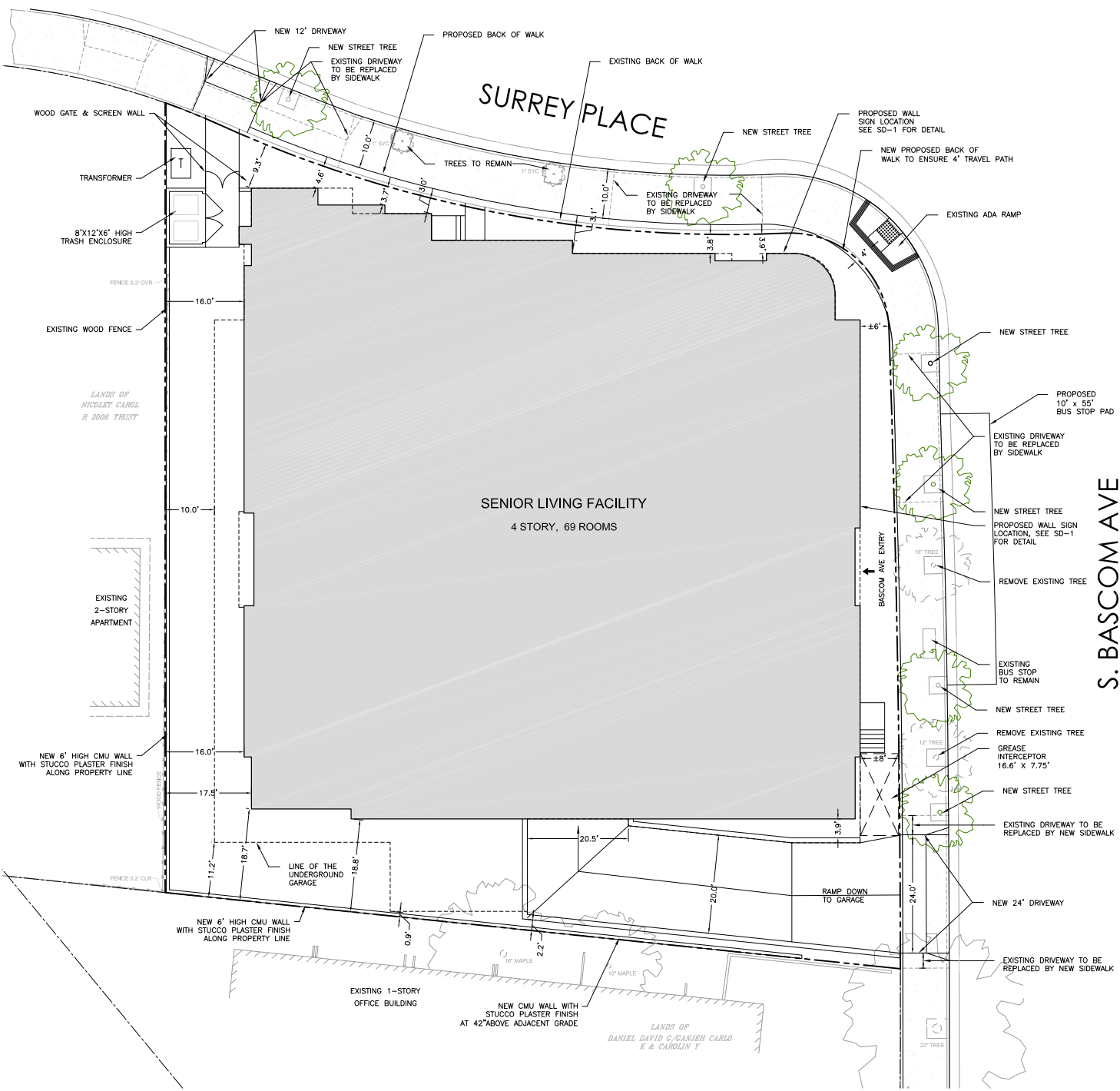




**EXHIBIT 2: AERIAL MAP**





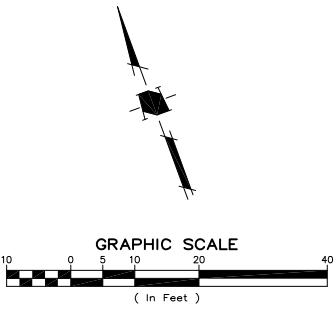


- NOTE:
1. Existing sidewalk will be rebuilt.
  2. Existing street trees will be relocated or replaced per City standards.

Legend

----- Project Boundary

----- Adjacent Lot Line



Revised In Feb, 2008

**EXHIBIT 3: CONCEPTUAL SITE PLAN**

---

APPENDIX A:  
*Geotechnical Report*



Prepared for **Sunrise Development, Inc.**

**GEOTECHNICAL INVESTIGATION  
SUNRISE ASSISTED LIVING CENTER  
2517 SOUTH BASCOM AVENUE  
SAN JOSE, CALIFORNIA**

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PROJECT**

July 26, 2007  
File No.: 83627/GEO





July 26, 2007  
Project No. 83627/GEO

Mr. Phillip Maskiewicz  
Sunrise Development, Inc.  
2600 El Camino Real, Suite 414  
Palo Alto, California 94306  
Phillip.Maskiewicz@sunriseseniorliving.com

**Subject: Geotechnical Investigation for the Sunrise Assisted Living Center at 2517 South Bascom Avenue in San Jose, California**

Dear Mr. Maskiewicz:

Kleinfelder is pleased to submit five copies (four hard and one electronic) of our geotechnical investigation report for the Sunrise Assisted Living Center in San Jose, California. The enclosed report provides a description of the investigation performed and geotechnical recommendations for site grading and foundation design.

In summary, it is our opinion that the site is suitable for the proposed construction of the center provided that the recommendations presented in our report are followed. The main geotechnical concern for the project site is the excavation for the planned below grade portion of the store. The excavation for the north and east sides of the building appears to extend laterally to the limits of the property. It is likely that shoring will be needed along this side of the excavation. The remainder of the excavation is set-back from the property line, that may allow for use of open cut, except for possibly the south side depending on the distance of setback from the property. Groundwater was not encountered in the borings to a depth of about 43 feet, and should not be encountered in the planned excavation except for possible isolated zones of perched water that might require localized dewatering during excavation. The soils anticipated to be encountered at the bottom of the excavation will be able to support the building loads on shallow footings. The floor slab for the below ground parking can be supported on grade over a prepared subgrade. These items, as well as our investigative methods, and our specific recommendations for design and construction, are contained in the following report.

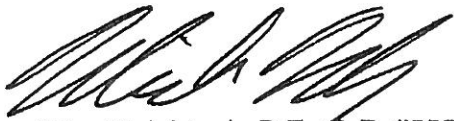
It should be noted that the conclusions and recommendations presented in this report are based on limited subsurface exploration, and, as a result, variations between anticipated and actual soil conditions may be found in localized areas during

construction. It is recommended that Kleinfelder be retained during construction to observe earthwork and installation of foundations to make any changes to our recommendations that may be necessary due to varying subsurface conditions. We should review the project plans and specifications prior to construction bidding, to confirm that they are in compliance with the recommendations presented in this report.

We appreciate the opportunity of providing our services to you on this project and trust this report meets your needs at this time. If you have any questions concerning the information presented, please contact this office at (925) 484-1700.

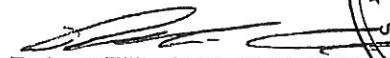
Sincerely,

**KLEINFELDER WEST, INC.**



Mike Majchrzak, P.E., G.E. #555  
Principal Geotechnical Engineer

MFM/RE/jmk



Robert Ellis, P.E., G.E. #2666  
Senior Geotechnical Engineer



# Important Information About Your Geotechnical Engineering Report

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*The following information is provided to help you manage your risks.*

## **Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects**

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you -* should apply the report for any purpose or project except the one originally contemplated.

## **Read the Full Report**

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## **A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors**

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## **Subsurface Conditions Can Change**

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

## **Most Geotechnical Findings Are Professional Opinions**

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ-sometimes significantly from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## **A Report's Recommendations Are Not Final**

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

### **A Geotechnical Engineering Report Is Subject to Misinterpretation**

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Contractors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.*

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led

to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Geoenvironmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

### **Rely on Your ASFE-Member Geotechnical Engineer For Additional Assistance**

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.



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Appendix B	–	Laboratory Testing
Appendix C	-	Geophysical Survey Report date July 5, 2007
Appendix D	-	Corrosion Test Results





**GEOTECHNICAL INVESTIGATION  
SUNRISE ASSISTED LIVING CENTER  
2517 SOUTH BASCOM AVENUE  
SAN JOSE, CALIFORNIA**

## 1 INTRODUCTION

---

This report presents the results of a geotechnical investigation for the Sunrise Assisted Living complex at 2517 South Bascom Avenue in San Jose, California. A Vicinity Map showing the site location is presented on Plate 1. We were retained by Mr. Phillip Maskiewicz of Sunrise Development, Inc. to conduct a geotechnical investigation at the site for the proposed construction of building.

### 1.1 PROPOSED PROJECT

The project consists of constructing a four-story above-ground housing facility with underground parking as shown on hand drawn sketches dated March 21, 2007. The complex is anticipated to contain approximately 83 single and double housing units. The building will have a footprint of approximately 15,000 square feet. The above ground portion is anticipated to be constructed of wood or steel members. The below ground parking will be of concrete construction. It is anticipated that the below ground parking will extend approximately 12 feet below the street grade. Entrance to the below ground parking will be from a ramp along the south side of the building. The building will extend to approximately the property lines along Surrey Place and South Bascom Avenue. There will be an approximate 25-foot setback from the west property line, and a 5 to 10-foot setback from the south property line.

Building loads are unknown at this time, but are anticipated to be up to about 300 kips dead plus live loads for columns. To construct the underground portion of the project, an excavation of about 12 feet is anticipated. Minor fills of less than a couple of feet may occur. It is unknown if there will be surface parking. The approximate location of the planned building is shown on our Site Plan, Plate 2.

If the actual project differs from that indicated above, we will need to review our recommendations for applicability.

## **1.2 PURPOSE AND SCOPE OF SERVICES**

The purpose of this investigation is to explore and evaluate the subsurface soils at the location of the complex to provide geotechnical input for the design and construction of foundations for this project. The scope of services, as outlined in our May 1, 2007 proposal (File Number: 01201PROP), consists of field exploration, laboratory testing, engineering analyses, and preparation of this report. This study also addresses the potential corrosivity of the near-surface soils, pavement design, settlement issues, and earthwork construction considerations.

As part of our services, we concurrently performed an Environmental Site Assessment (Phase I) and an Environmental Phase II of the project site. The field investigation for the Phase II environmental work also included geophysical work. The results of the geophysical field analysis, along with our environmental services, are presented under separate cover.

## 2 GEOLOGY, FAULTING, AND SEISMICITY

Presented below is a discussion of the regional and local geology at the site, as well as a general discussion of the faulting and seismicity at the site and within the San Francisco Bay Area.

### 2.1 REGIONAL GEOLOGY

The San Francisco Bay Area lies within the Coast Range geomorphic province, a series of discontinuous northwest trending mountain ranges, ridges, and intervening valleys characterized by complex folding and faulting. Such features in the eastern portion of the San Francisco Bay Area include the Diablo Range, Berkeley Hills and the East Bay Plain. The general geologic framework of the greater San Francisco Bay Area is illustrated in studies by Schlocker (1970), Helley et al. (1979 and 1994), Graymer et al. (1996), Wentworth (1997), Graymer (2000), and Witter et al. (2006).

Geologic and geomorphic structures within the San Francisco Bay Area are dominated by the San Andreas fault (SAF), a right-lateral strike-slip fault that extends from the Gulf of California in Mexico, to Cape Mendocino, on the Coast of Humboldt County in northern California. It forms a portion of the boundary between two independent tectonic plates on the surface of the earth. To the west of the SAF is the Pacific plate, which moves north relative to the North American plate, located east of the fault. In the San Francisco Bay Area, movement across this plate boundary is concentrated on the SAF; however, it is also distributed, to a lesser extent across a number of other faults that include the Hayward, Calaveras, and Concord among others. Together, these faults are referred to as the SAF system. Movement along the SAF system has been ongoing for about the last 25 million years. The northwest trend of the faults within this fault system is largely responsible for the strong northwest structural orientation of geologic and geomorphic features in the San Francisco Bay Area.

### 2.2 LOCAL GEOLOGY

The site is located in Santa Clara Valley, approximately six miles south of the southern end of San Francisco Bay. Santa Clara Valley lies between the Santa Cruz Mountains to the west and East Bay Hills to the east, which are transected by the San Andreas and

Hayward/Calaveras fault zones, respectively. The valley is filled with Quaternary age alluvial sediments deposited by the many creeks that flow from the bordering hills and mountains. The nearby Santa Cruz Mountains expose bedrock units that vary from Cretaceous Franciscan rocks to various Tertiary sedimentary formations (Wentworth, 1997 and McLaughlin et al., 2001). Localized studies, which emphasize the Quaternary alluvial and Bay deposits in the vicinity of the site, have been prepared by Helley et al. (1979 and 1994) and Witter et al. (2006).

Based on mapping by McLaughlin et al. (2001), the site is underlain by Pleistocene alluvial fan deposits. These deposits (Qpf) commonly consist of variable mixtures of clay, silt, sand and gravel.

## **2.3 FAULTING AND SEISMICITY**

The site is situated within the San Francisco Bay Area, which is characterized by numerous active faults and moderate to high seismic activity. Based on the information provided in Hart and Bryant (1997), CGS (2002), and Santa Clara County (2002) the site is not located within a State- or County-designated, Earthquake Fault Rupture Hazard Zone where site-specific studies addressing the potential for surface fault rupture are required and no known active faults traverse the site. Based on the map of known active faults (ICBO, 1998), the Monte Vista-Shannon fault and the San Andreas fault are the two closest faults to the site. These fault zones are located about 4.2 kilometers (Monte Vista) and 12.1 kilometers (San Andreas) southwest of the site. The Monte Vista-Shannon fault is a southwest dipping thrust fault, which is part of a system of thrust faults known as the Foothill Thrust Belt that transects the eastern base of the nearby Santa Cruz Mountains (Fenton and Hitchcock, 2001). The site is located between strands within this fault zone as mapped by McLaughlin et al. (2001) and Santa Clara County (2002). Other significant faults located near the site include the Sargent, Hayward, Calaveras, and Zayante-Vergeles faults, which are located approximately 15, 16, 20 and 21 kilometers from the site. A major seismic event on these or other nearby faults may cause substantial ground shaking at the site.

### 3 SITE DESCRIPTION

---

The existing rectangular shaped site is located at the southwest corner of South Bascom Avenue and Surrey Place in San Jose. The approximate 140 by 140 foot site is bounded by Surrey Place to the north, South Bascom Avenue to the east, and apartment complexes to the south and west, and occupies approximately 22,412 feet (as indicated in the hand drawn sketch dated March 21, 2007. It is reported that a gas station once occupied the site. Currently, the site is free of structures, and is covered with aggregate material. A wooden fence associated with another property is located west of the site. Ground elevations based on Google Earth are estimated to be approximately 204 feet Mean Sea Level Datum.

## 4 FIELD EXPLORATION

A field investigation for this study was performed on June 13, 2007, and consisted of the drilling of five borings. The borings were located roughly within the limits of the planned footprint of the center and underground parking. HEW Drilling Company of Palo Alto, California was subcontracted to provide drilling services. The locations of the five soil borings, B-1 through B-5, are approximately shown on the Site Plan on Plate 2. Eight inch diameter hollow stem augers were used. A geologist from our office selected the boring locations, boring depths, sampling intervals, and observed the drilling operation.

Disturbed and relatively undisturbed samples were taken at the direction of the geologist during drilling. Relatively undisturbed samples of the subsurface materials were obtained using a California sampler with a 2.5-inch inside diameter (I.D.) and a 3-inch outside diameter (O.D.). The California samplers were driven 18 inches using a 140-pound hammer falling 30 inches, and blow counts for successive 6-inch penetration intervals were recorded. The blow counts corresponding to the last 12 inches of penetration were reported on the boring logs. After the sampler was withdrawn from the borehole, the samples were removed, sealed to reduce moisture loss, labeled, and returned to our laboratory. Prior to sealing the samples, strength characteristics of the cohesive soil samples recovered were evaluated using a hand-held pocket penetrometer. The results of these tests are shown adjacent to the samples on the boring logs. Samples were also taken during for environmental testing; the results of which are included in our environmental report. During drilling, most of the samples were tested by a Photo Ionization Detector for hydrocarbon vapor. The results of this testing is presented on the boring logs.

Soil classifications made in the field from auger cuttings and samples, were re-evaluated in the laboratory after further examination and testing. The soils were classified in general accordance with the Unified Soil Classification System presented on Plate A-1, Boring Log Legend. Sample classifications, blow counts recorded during sampling, and other related information were recorded on the soil boring logs. The boring logs for borings B-1 through B-4 are presented on Plates A-2 through A-5 in Appendix A.

The locations of the borings were estimated by our geologist based on rough measurements from existing features at the site. Elevations shown on the boring logs were estimated using site plan transmitted to us. As such the elevations and locations of the borings will be considered approximate to the degree implied.

Prior to the start of our field investigation, Underground Services Alert (USA) was contacted to locate utilities within the pertinent street rights-of-way. As required by local ordinance, a drilling permit was obtained from the Santa Clara Valley Water District. Upon their completion, the borings were backfilled with cement grout in accordance with the County's requirements. The soil cuttings generated during our drilling operation were spread on the site.

In addition to the borings drilled at the site, a geophysical survey of the property was performed by Norcal Geophysical Consultants, Inc. of Cotati, California. The survey was performed on June 11, 2007, and the results of the survey are presented in the letter report by Norcal Geophysical Consultants, Inc. dated July 5, 2007. A copy of the letter report is attached in Appendix C. The survey consisted of using a magnetometer on a 5-foot grid over accessible portions of the site. Based on the results of the magnetometer, local areas were investigated using ground penetrating radar and an electromagnetic metal detector. The results of the survey indicate that a number of buried utility lines, a possible vault, and possible tanks exist beneath the surface of the site. The July 5, 2007 report should be reviewed for a more accurate description of the possibly buried items. The results of the survey were also used to help locate possible underground items that could be encountered during drilling. As a result of the survey, boring B-5 was added to obtain environmental samples near the location of possibly underground tanks.



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## 5 LABORATORY TESTING

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Laboratory tests were performed on selected soil samples to evaluate their physical characteristics and engineering properties. The laboratory testing program included unit weight and moisture content, Atterberg Limits, sieve analysis, unconfined compression strength, direct shear, and Resistance (R) Value. Most of the laboratory test results are presented on the boring logs. The results of the Atterberg Limits, unconfined compression, direct shear and R-Value tests are presented graphically on Plates B-1 through B-5, in Appendix B.

A chemical analysis was performed by CERCO Analytical on samples of the upper soils from borings B3 and B-5 at about 4 feet in depth to evaluate the corrosive potential of the near-surface soil. The results of the chemical testing (utilizing ASTM Methods) are presented in Appendix D.

## 6 SUBSURFACE CONDITIONS

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Presented below is a general description of soil and groundwater conditions encountered at the site in the borings drilled for this investigation. For a more detailed description of the soils encountered, refer to the logs of borings in Appendix A. It should be noted that soil and subsurface conditions can deviate from those conditions encountered at the boring locations. If significant variation in the subsurface conditions is encountered during construction, it may be necessary for Kleinfelder to review the recommendations presented herein and recommend adjustments as necessary.

All borings encountered approximately 12 inches of aggregate at the surface. Below the aggregate, approximately 10 to 15 feet of sand with varying amounts of silt and gravel was encountered. Based on blow counts to drive the sampler during drilling of the borings, the density of this material varies from loose to dense. The sand was found to be dry to moist. Generally, dense gravelly sand/sandy gravel was encountered below the sand in all of the borings to the maximum depth drilled of about 43.5 feet. Large gravel up to about 2 inches in diameter was encountered in this layer. In a couple of the borings, a layer of sandy silty clay was encountered between the surface sands and the gravelly sand layers. An Atterberg Limits test performed on a sample of this clayey soil had Plasticity Index value of 9, and Liquid Limit value of 23, which is indicative of a low expansive material.

Groundwater was not encountered in the borings to the maximum depth drilled of about 43.5 feet below the ground surface.

## 7 DISCUSSION AND CONCLUSIONS

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The significant geotechnical issue for the proposed complex is the planned excavation. Portions of the excavation will encroach close to the limits of property. As such, shoring will be required. Otherwise, cut slopes of 1-1/2:1 (horizontal to vertical) may be used. The materials anticipated to be encountered during shoring are expected to be dry and loose, and most likely will "run" during excavation. The installation of the shoring needs to take this condition in account. Even though groundwater was not encountered in the borings within the planned depth of excavation, water from other sources may become trapped behind the below ground retaining walls. As a result, wet spots may occur in the walls. If this is undesirable, then the walls may need to be waterproofed.

The soils encountered at the level of the bottom of the planned excavation are of sufficient strength to support the planned structure on isolated and/or continuous footings. The floor slab for the store can be support on grade over a prepared subgrade. The materials anticipated at the bottom of the planned excavation will contain significant amounts of gravel. The gravel can be easily disturbed in the mass excavation, as well as during the excavation for the footings. As such, recompaction of the materials exposed at the bottom of the mass excavation, and at the bottom of the footing excavations is recommended.

Further discussion of the information presented above with design recommendations for foundations, earthwork, site drainage, and pavements is presented in the Section 8 "Recommendations" of this report.

## 8 RECOMMENDATIONS

Presented below are recommendations for foundations, concrete floor slabs, exterior flatwork, shoring, earthwork, site drainage, and pavements, as well as a discussion of corrosion and seismic considerations for this project.

### 8.1 FOUNDATIONS

Based on our investigation, the loads for the proposed building can be supported by continuous and isolated footings bearing on the native soils that will be encountered below the excavation for the underground parking. The footings should be embedded to a depth of 24 inches below the bottom of the floor slab. The recommended allowable soil bearing pressures, depth of embedment, and width of footings are presented below. The allowable bearing values provided have been estimated assuming that all footings uniformly bear on native soils, or on engineered fill if undocumented fill or soft or loose soils are encountered within the footing excavation.

FOUNDATION BEARING CAPACITY RECOMMENDATIONS			
Footing Type	Allowable Bearing Pressure (psf)	Minimum Embedment (in)	Minimum Width (in)
Exterior Continuous Footing	5,000	24	12
Interior Continuous Footing	5,000	24	12
Isolated Interior Footing	5,000	24	18x18
Isolated Exterior Footing	5,000	24	18x18
* Pounds per square foot, dead plus live load. Includes a factor of safety (FS) of 3.			
** Below lowest adjacent grade defined as bottom of slab on the interior and finish grade at the exterior.			

Allowable soil bearing pressures may be increased by one-third for transient loads such as wind and seismic loads. Total settlement is anticipated to be less than 1 inch with ½ inch of differential settlement over 50 feet or between columns.

Where footings are located adjacent to below-grade structures or near major underground utilities, the footings should extend below a 1:1 (horizontal to vertical) plane projected upward from the structure footing or bottom of the underground utility to avoid surcharging the below grade structure and underground utility with building loads. In addition, where utilities cross through or under exterior footings, flexible waterproof caulking should be provided between the sleeve and the pipe. Utility plans should be reviewed by Kleinfelder prior to trenching for conformance to these requirements.

Where footings are located adjacent to downward slope, there should be a minimum horizontal distance of 5 feet between the bottom of the footing and the outside edge of the slope at that depth.

Concrete for footings should be placed neat against native soil. It is critical that footing excavations not be allowed to dry before placing concrete. If shrinkage cracks appear in the footing excavations, the excavations should be thoroughly moistened to close all cracks prior to concrete placement. The footing excavations should be monitored by a representative of Kleinfelder for compliance with appropriate moisture control and to confirm the adequacy of the bearing materials. If soft or loose materials are encountered at the bottom of the footing excavations, they should be removed and replaced with lean concrete or engineered fill. Kleinfelder should also be present during the overexcavation. Unit prices for such overexcavation and backfilling should be obtained during contractor bidding for this project.

Lateral loads may be resisted by a combination of friction between the foundation bottoms and the supporting subgrade, and by passive resistance acting against the vertical faces of the foundations, including grade beams. An allowable friction coefficient of 0.45 between the foundation and supporting subgrade may be used. For passive resistance, an allowable equivalent fluid pressure of 450 pounds per cubic foot may be used. Passive pressure should be neglected in the upper one foot unless the adjacent surface is confined by paving or flatwork. The friction coefficient and passive resistance may be used concurrently, and the passive resistance can be increased by one-third for wind and/or seismic loading.

## 8.2 SLABS-ON-GRADE

Concrete slabs-on-grade will include the slab for the underground parking. The slab should be placed on 6 inches of compacted Class 2 Aggregate Base over a prepared subgrade. All slabs should be supported on properly prepared subgrade soils, as described in Section 8.6 "Earthwork" of this report.

Where the risk of moisture penetration through interior floor slabs is to be reduced, the slab should be constructed on a layer of capillary break consisting of 4 inches of free-draining crushed rock or gravel (no rounded rock) graded such that 100 percent will pass the 1-inch sieve and none will pass the No. 4 sieve covered by a continuous impermeable membrane vapor barrier. The impermeable membrane should consist of a minimum thickness of 10-mil polyethylene sheeting or similar moisture barrier. Lapped joints and perforations in the vapor barrier should be kept to a minimum, and should be sealed. To provide protection for the membrane, 2 inches of slightly moistened clean fine sand should be placed on top of the membrane prior to placement of concrete. Where crushed rock is used as the capillary break material, seating of the rock with a vibratory plate compactor may aid in reducing the potential for damage to the vapor barrier as the reinforcing steel and the concrete are placed.

It should be emphasized that we are not floor moisture proofing experts. While the current industry standard is to place a vapor barrier over a gravel layer as described above, this system may not be completely effective in preventing floor slab moisture problems. These systems typically will not necessarily assure that floor slab moisture transmission rates will meet floor-covering manufacturing standards and that indoor humidity levels be appropriate to inhibit mold growth. The design and construction of such systems are totally dependent on the proposed use and design of the proposed building. All elements of building design and function should be considered in the slab-on-grade floor design. Building design and construction may have a greater role in perceived moisture problems since sealed buildings/rooms or inadequate ventilation may produce excess moisture in a building and affect indoor air quality.

The structural engineer should design the slab thickness, reinforcing, and control joint spacing. However, a minimum floor slab thickness of 5 inches is recommended for the interior floor slab and 6 inches for exterior flatwork subject to vehicle traffic.

## 8.3 RETAINING WALLS AND BELOW GRADE WALLS

### 8.3.1 Design Pressures

Retaining walls and below-grade walls should be designed to resist lateral pressures caused by water, soil and external surface loads. The magnitude of the lateral pressures will depend on whether or not the walls will be allowed to move, the type of backfill and its method of placement (retaining walls), excavation and shoring procedures (below-grade walls), the magnitude of external loads, the design water level elevation, and wall drainage provisions.

In addition to the static loading of the basement walls due to earth and surcharge pressures, the retaining walls will be subjected to short-term lateral loading during a seismic event. The structural engineer should check the structural integrity of the basement walls for a combination of static and seismic lateral loading. Recommendations to evaluate the seismic lateral pressures on the existing basement walls are presented in the following table. The factor of safety of the wall can be reduced to 1.1 when considering seismic loading.



# **RECOMMENDED STATIC AND SEISMIC LATERAL EARTH AND SURCHARGE PRESSURES FOR RETAINING WALLS**

Condition	Static Lateral Earth Pressure	Surcharge Lateral Pressure	Seismic Lateral Earth Pressure <sup>2</sup>
UNRESTRAINED <sup>3</sup>	Equivalent Fluid Unit Weight = 35 pcf / ft	0.33q (psf)	19H (psf)
RESTRAINED <sup>4</sup>	Equivalent Fluid Unit Weight = 55 pcf / ft	0.50q (psf)	
Pressure Distribution	Triangular	Uniform (rectangular)	Uniform (rectangular)
Applied Lateral Force <sup>5</sup> (pounds-force / foot)	0.33H above the bottom of the wall	0.5H above the bottom of the wall	0.5H above the bottom of the wall

<sup>1</sup> The surcharge pressure, q, is equivalent to the applied pressure from loads (such as buildings) located with a lateral distance equivalent to H. These pressures are general and more detailed analysis can be provided if needed.

<sup>2</sup> Where H is the total height of the wall. With this load, the Factor of Safety for the system can be reduced to 1.1.

<sup>3</sup> Flexible Wall = Outward movement of the top of wall > 0.5%H

<sup>4</sup> Stiff Wall = Outward movement of top of wall = 0 to 0.2%H

<sup>5</sup> The applied lateral force resultant is equivalent to a line load applied normal to the face of the retaining wall and is equal to the area of the pressure distribution as presented above (i.e.: the applied lateral force resultant due to the static unrestrained lateral earth pressure is equal to  $\frac{1}{2}$  (45 pcf) (H<sup>2</sup>) applied at a height of 1/3 from the base of the wall.)

Where the underground parking walls are to be constructed against shoring (if used), then the pressures associated with the unrestrained walls in the table above can be used in the design. Foundation systems that are located above an imaginary 1H:1V line, projected from the bottom of the new basement footings, will produce a surcharge load on the basement walls in addition to the existing static lateral earth pressures.

## **8.3.2 Wall Drainage**

Although groundwater is anticipated to be below most of the planned depth range of below-grade walls, water pressures could accumulate behind below-grade walls in response to irrigation, rainfall and runoff or other factors. If below-grade walls do not include full drainage, hydrostatic pressures should be included in the design. Walls may



be designed without hydrostatic pressures if they are fully drained. Drainage should consist of either a prefabricated drainage material or a layer of drain rock. Prefabricated drainage material (such as Miradrain® or an approved alternate) may be used behind below-grade and retaining walls. Prefabricated drainage material should be installed in accordance with the manufacturer's recommendations.

As an alternative to prefabricated drainage material, a drain rock layer may be used. The drain rock layer should be 1 to 2 feet thick and extend to within 1 foot of the ground surface. Four-inch diameter perforated plastic pipe should be installed (with the perforations facing down) along the base of the walls on a 4 inch thick bed of drain rock. The pipe should be sloped to drain by gravity to a sump or other drainage facility. Weep holes may also be used if water seepage is permissible in the basement. The weep holes should be a minimum of 3 inches in diameter located at no more than 10 feet apart, and a screen placed at the back of the holes if drain rock is used.

Drain rock should conform to Caltrans Class 2 Permeable Material. Alternatively, locally available, clean, 1/2 to 3/4-inch maximum size crushed rock or gravel could be used, provided it is encapsulated in a non-woven geotextile filter fabric, such as Mirafi® 140N or an approved alternative.

Even with the back drain system, localized wet spots may occur in the walls. If this is undesirable, then the wall should be waterproofed.

## **8.4 DEMOLITION**

### **8.4.1 Existing Improvements**

As part of the demolition process, foundations (if existing) and other improvements should be removed. Excavations from removal of foundations, underground utilities or other below ground obstructions where located outside of the planned excavation for the underground parking should be cleaned of loose soil and deleterious material, and backfilled with compacted engineered fill. Fills should be compacted per the recommendations in Section 8.6 "Earthwork" of this report and as presented in Table No. 1.

#### **8.4.2 Existing Utilities**

Active or inactive utilities within the construction area should be protected, relocated, or abandoned. Pipelines that are 2 inches in diameter or less may be left in place beneath the planned buildings. Pipelines between 2 and 6 inches in diameter may be left in place within the limits of the buildings provided they are filled with sand/cement slurry and capped at both ends. Pipelines larger than 6 inches in diameter within the planned buildings should be removed. Active utilities to be reused should be carefully located and protected during demolition and during construction.

#### **8.4.3 Existing Trees**

Tree stumps and roots over 1 inch in diameter and over 3 feet in length should be removed within the building footprints and areas for planned improvements. From a geotechnical standpoint, existing landscaping may be left in place as landscaping provided that it is outside of the area to be graded.

### **8.5 EXTERIOR FLATWORK**

Prior to construction of exterior flatwork, including concrete pavements, the subgrade should be moisture conditioned and compacted according to Section 8.6 "Earthwork" of this report and Table No. 1. Where flatwork is to be exposed to vehicular traffic, we recommend that it be underlain by 6 inches Class 2 Aggregate Base material. Where flatwork is adjacent to curbs, reinforcing bars should be placed between the flatwork and the curbs. Expansion joint material should be used between flatwork and curbs, and flatwork and buildings. The design of concrete pavements should incorporate the drainage and pavement specific earthwork recommendations provided in Section 8.9 "Pavements" of this report.

### **8.6 EARTHWORK**

Earthwork at the site will generally consist of the excavation for the planned underground parking, subgrade preparation and placement of baserock or crushed rock for concrete flatwork and pavements, excavation and backfill of underground utility line trenches, and possible backfill of the underground parking walls if the excavation is performed with open cuts. Although grading plans were not available to us at the time

this report was prepared, we anticipate that the required grading will consist of cuts of to about 12 feet for the planned underground parking, and fills of less than 3 feet. Kleinfelder should review the final grading plans for conformance to our design recommendations prior to construction bidding. In addition, it is important that a representative of Kleinfelder observe and evaluate the competency of existing soils or new fill underlying structures, concrete flatwork, and pavements. In general, soft/loose or unsuitable materials encountered should be overexcavated, removed, and replaced with compacted engineered fill material.

Construction debris consisting of aggregate base, concrete, and asphalt concrete generated during the demolition operation may be used as general fill material provided that it meets the grading and expansive criteria for import material specified in Section 8.6.3 "Fill Material" of this report. Note that construction debris consisting of organic material (i.e., wood, mulch, etc.), metal, or similar degradable materials should not be used as fill material at the site and should be hauled offsite.

Site preparation and grading for this project should be performed in accordance with the site-specific recommendations provided below. A summary of soil compaction recommendations for this project is presented in Table No. 1. Additional earthwork recommendations are presented in related sections of this report.

Prior to the start of the excavation for the below ground portion of the project, it is suggested that a survey of the property adjacent to the project be made to document existing conditions. In addition, survey points should be established around the perimeter of the site to measure both vertical and horizontal movements.

#### **8.6.1 Site Preparation and Grading**

Prior to the start of grading and subgrade preparation operations, the site should first be cleared and stripped to remove all surface vegetation, organic laden topsoil and debris generated during the demolition of existing pavements, concrete slabs and flatwork, foundations, and landscaping located within the site. Stripped topsoil from landscaped areas may be stockpiled for later use in landscaping areas; however, this material should not be reused for engineered fill. The existing aggregate base material may be stockpiled for use beneath the underground parking slab.

Following stripping and removal of deleterious materials, areas of the site to receive fill should be scarified to a minimum depth of 12 inches, moisture-conditioned, and recompacted as indicated on Table No. 1. Scarification should extend laterally a minimum of 3 feet beyond the building limits and 2 feet beyond flatwork and pavements, where achievable, and any debris uncovered by this process should be removed. All fills should be compacted in lifts of 8-inch maximum uncompacted thickness. A summary of compaction requirements for the project is presented in Table No. 1. Laboratory maximum dry density and optimum moisture content relationships should be evaluated based on ASTM Test Designation D-1557 (latest edition). Caution should be taken during grading and compaction to reduce the "pumping" of soft or wet soil. This could result in the need to use light weight compaction equipment in low areas and rerouting truck traffic to avoid overstressing the haul roads. If the subgrade for the underground parking is not disturbed during excavation, it is anticipated that recompaction or moisture conditioning of the subgrade will not be needed.

All site preparation and fill placement should be observed by a Kleinfelder representative. It is important that, during the stripping and scarification process, our representative be present to observe whether any undesirable material is encountered in the construction area and whether exposed soils are similar to those encountered during our field investigation.

#### **8.6.2 Excavation**

Construction of the basement for the proposed building will require an excavation of about 12 feet below the existing ground surface. To make this excavation it is expected, based on the test borings, that conventional earth moving equipment can be used, with the possible need for special equipment to remove any existing concrete slabs, footings, and other buried obstructions associated with the previously existing structures on the site.

There is a potential that the excavation process may significantly disturb the soils at the final subgrade. Care should be taken to reduce disturbance of the subgrade for the slab by the grading contractor where within 12 inches of subgrade level. Perched groundwater may be encountered. This will result in extremely high moisture contents of the soils, and as well as a need to work in wet conditions. Localized dewater may be

required. Because of the presence of the gravelly soils at the bottom of the planned excavation, recompaction of the upper 8 inches of the subgrade should be anticipated.

If the excavation is graded with open cuts, the cuts should not be any steeper than 1-1/2:1 (horizontal to vertical). Equipment and materials should be kept a minimum of 10 feet back from the top of any cuts. In addition, safety precautions to keep people and equipment away from the top of the slope should be provided.

### 8.6.3 Fill Material

Except for organic laden topsoil in landscaped areas, and any material containing organics, the on-site soil is suitable for use as general engineered fill if it is free of deleterious material matter. The aggregate base material found at the surface of the site may be reused as aggregate base beneath the underground parking slab. Maximum particle size for fill material should be limited to 3 inches, with at least 90 percent by weight passing the 1-inch sieve. Where imported material is required, it is recommended that it be granular in nature, adhere to the above gradation recommendations, and conform to the following minimum criteria:

Plasticity Index	15 or less
Liquid Limit	less than 30%
Percent Soil Passing #200 Sieve	8% to 40%

Highly pervious materials such as pea gravel are not recommended because they permit transmission of water to the underlying soils, except as bedding material for utilities and in relatively narrow excavations resulting from removal of existing piles. In addition, imported fill material should be tested for corrosion, and should not be any more corrosive than the on-site soils. We recommend that representative samples of the material proposed for use as fill be submitted to Kleinfelder for testing and approval at least two weeks prior to the start of grading and import of this material. All on-site and import fill material should be compacted to the recommendations provided for engineered fill in Table No. 1.

The moisture conditioning should be performed in accordance with Table No. 1. Where low expansion potential soils or baserock in paved areas are used, it should be placed immediately over the prepared subgrade to avoid drying of the subgrade. Prior to the placement of the capillary break or drainage gravel (if applicable) over the subgrade for

the building, the subgrade should be conditioned to the moisture content indicated in Table No. 1; if the subgrade for the underground parking is not disturbed during excavation, it is anticipated that moisture conditioning will not be needed. The subgrade for exterior concrete flatwork should be conditioned to the required moisture content prior to their construction, and may require additional conditioning if it is allowed to dry. Caution should be taken during compaction to reduce "pumping" up of groundwater by repeated or heavy vehicle traffic.

#### **8.6.4 Weather/Moisture Considerations**

If earthwork operations and construction for this project are scheduled to be performed during the rainy season (usually November to May) or in areas containing saturated soils, provisions may be required for drying of soil or providing admixtures to the soil prior to compaction. If desired, we can provide recommendations for wet weather earthwork and alternatives for drying the soil prior to compaction. Conversely, additional moisture may be required during dry months. Water trucks should be made available in sufficient numbers to provide adequate water during earthwork operations.

Since portions of the site are currently capped with concrete slab or AC pavement, the moisture content of the subgrade soils in these areas will be significantly above the optimum moisture content. This occurrence is usually caused by the migration of irrigation water from landscaped areas into the aggregate base material and/or the entrapment of subsurface moisture underneath slab and pavement areas. As a result, the subgrade soils may need to be dried prior to undergoing recompaction. It is also recommended that any landscape watering in the area be turned off at least two weeks prior to the start of grading activities at the site. If site grading is performed during the rainy months, the site soils could become very wet and difficult to compact without undergoing significant drying. This may not be feasible without delaying the construction schedule. For this reason, drier import soils could be required or lime treating may be needed if construction takes place during winter months.

#### **8.6.5 Footing and Trench Excavation and Backfill**

We anticipate that excavation for foundations and utility trenches can be made with either a backhoe or trencher, or similar earthwork equipment. Due to the sandy nature of the surface fill at the site, excavations deeper than about 4 feet should be shored.



Where excavations will be left open for more than 1 or 2 days, or where sandy soils are encountered, continuous shoring may be required. Some sloughage of soils into trench excavations should be anticipated even for shallow trenches (i.e., shallower than 4 feet).

Where trenches or other excavations are extended deeper than 4 feet, the excavation may become unstable and should be evaluated to monitor stability prior to personnel entering the trenches. Shoring or sloping of any trench wall may be necessary to protect personnel and to provide stability. Bids should be obtained for continuous shoring, which may include solid plate shoring, trench boxes, sheet piling, or other propriety systems that provide continuous shoring. The contractor's proposed shoring system(s) should be submitted to the architect for approval prior to use. We recommend that incremental bid items be included in the bid item list for the various types of shoring.

All trenches or other excavations should conform to the current California Occupational Safety and Health Administration (Cal-OSHA) requirements for work safety. It is the contractor's responsibility to follow Cal-OSHA temporary excavation guidelines and grade the slopes with adequate layback or provide adequate shoring and underpinning of existing structures and improvements, as needed. Slope layback and/or shoring measures should be adjusted as necessary in the field during construction to suit the actual conditions encountered, in order to protect personnel and equipment within excavations. These recommendations assume minimal equipment vibration and adequate setbacks of excavated materials and construction equipment from the top edge of the excavation. We recommend that the minimum setback distance be one-half the excavation depth. We have also assumed that the moisture content of the soil in the cut face will not be allowed to change significantly.

Care should be taken during construction to reduce the impact of trenching on adjacent structures and pavements (if applicable). Excavations should be located so that no structures, foundations, and slabs, existing or new, are located above a plane projected 1:1 (horizontal to vertical) upward from any point in an excavation, regardless of whether it is shored or unshored.

Backfill for trenches and other small excavations beneath slabs and within pavement areas should be compacted as noted in Table No. 1. Special care should be taken in the control of utility trench backfilling under structures, pavements, and flatwork/slab

areas. Poor compaction may cause excessive settlements resulting in damage to overlying structures, slabs, and the pavement structural section. Where backfill is to be placed against walls, care should be taken to not use equipment that could overload and damage the wall. Equipment other than small hand propelled equipment is to be used for compaction should be approved by the Structural Engineer.

#### **8.6.6 Temporary Dewatering**

We anticipate that excavations will not encounter groundwater at the site. However, perched water may be encountered during excavation. As such, temporary dewatering may be required.

Temporary dewatering for construction is the responsibility of the contractor. The selection of equipment and methods of dewatering should be left up to the contractor, who should be aware that modifications to the dewatering system may be required during construction depending on the conditions encountered. The dewatering method selected should have minimal impact on the groundwater level surrounding the proposed excavation. We recommend that temporary dewatering of the site be carried out in such a manner as to maintain the groundwater a minimum of 2 feet below excavations for utilities or structures.

As a minimum, provisions should be made to ensure that conventional sump pumps used in typical trenching and excavation projects are available during construction in case groundwater is found to be higher than observed during our investigation, and/or if substantial runoff water accumulates within the excavations as a result of wet weather conditions.

#### **8.6.7 Construction Observation**

Variations in soil types and conditions are possible and may be encountered during construction. To permit correlation between the soil data obtained during this investigation and the actual soil conditions encountered during construction, we recommend that Kleinfelder be retained to provide observation and testing services during site earthwork and foundation construction. This will allow us the opportunity to compare actual conditions exposed during construction with those encountered in our investigation and to provide supplemental recommendations if warranted by the



exposed conditions. Earthwork should be performed in accordance with the recommendations presented in this report, or as recommended by Kleinfelder during construction. Kleinfelder should be notified at least two working days prior to the start of construction and prior to when observation and testing services are needed.

We also recommend that Kleinfelder be retained to review the final foundation and grading plans and specifications. It has been our experience that this review provides an opportunity to detect misinterpretation or misunderstandings prior to the start of construction.

## **8.7 TEMPORARY SHORING**

Excavations of about 12 feet below the current ground surface will be required to reach the anticipated subgrade for the underground parking. The excavations will either be made with open cuts or shoring. In general, if temporary shoring is used, it should extend to the bottom of excavation for the mat. The design of the shoring and underpinning systems is normally the responsibility of the contractor or shoring designer. However, the test borings presented herein may be used for factual data such as soil types encountered at the location of each particular test boring and at the indicated depths. Interpolation between the test borings is at the user's own risk. The design of the temporary shoring should take into account lateral pressures exerted by the adjacent soil, and, where anticipated, surcharge loads due to adjacent improvements, and any construction equipment or traffic expected to operate alongside the excavation. Shoring designs should be reviewed by Kleinfelder who should also monitor the shoring construction including tie-back (if any) testing.

For movements of shoring to be controlled, the designer will have to provide for a uniform and timely mobilization of soil pressures. Only thus can large deflections be prevented at the time of, and long after, installation of the shoring structure. If tie-backs or interior bracing is used, it should be loaded to the design loads prior to excavation of the adjacent soil so that load induced strains in the retaining system will not result in the system moving toward the excavation. If voids are created behind the shoring system by overexcavating, soil sloughing, etc., the voids should be filled by grouting to reduce potential strains.

In conjunction with the shoring, a monitoring program should be set up and carried out by the contractor to determine the effects of the construction on the adjacent improvements. As a minimum, we recommend horizontal and vertical surveying of reference points on the shoring and on the adjacent streets and buildings, in addition to an initial crack survey of the surrounding properties. Reference points should be set up and read prior to the start of construction activities and points should be set on the shoring as soon as initial installations are made. Surveys should be made at least once a week and more frequently during critical construction activities or if significant deflections are noted.

Typically the shoring for this type of excavation consists of soldier beam and lagging (either cantilever or restrained), or soil nailing. Either system may be used at the site. These systems are discussed in more detail below.

#### **8.7.1 Soldier Beam and Lagging**

Shoring on the sides of the excavation may be provided by means of either a cantilever or a restrained soldier beam and lagging wall provided that additional measures be taken to reduce the potential for the sandy soils to "run" into the excavation. Lateral load resistance can be mobilized through post-tensioned tie-backs or interior bracing, and through the use of passive pressures on members which extend below the bottom of the excavation. For shorter heights of shoring (10 feet or shorter), a cantilever soldier beam and lagging system is typically used which mobilizes lateral load resistance only through the use of passive pressure on the portion of the soldier beam that extend below the bottom of the excavation. Design parameters for surcharge influence, lateral soil pressures, and passive soil resistant for a cantilever system is presented on Plate 3 of this report. Design pressures for a tie-back type or braced type shoring wall is presented on Plate 4. Design parameters for tie-backs, if used, is presented on Plate 5. Values more conservative than those shown on these plates should be used if the designer deems them appropriate. If other types of walls are selected for construction, the above recommendations are subject to change.

Sandy soils (including fill soils) were encountered in our borings in the upper 5 to 10 feet of the site. These soils may "run" during the excavation for the shoring system. As such, additional measures should be taken to reduce exposure of these soils which could include reducing the typical depth of unsupported excavation during installation of

the lagging. In addition, an increase in the filling of voids with grout should be anticipated.

### **8.7.2 Soil Nail Walls**

Soil nail walls consist of a shotcrete face over the planned cut. The shotcrete face is held in place with near horizontal rods (or nails) into the soil. The face is reinforced with welded wire fabric, and the nails are installed at close spacing to hold the shotcrete face. The installation is top-down. Drainage material is installed behind the back of the facing. The below grade walls are constructed against the facing. The soil nail wall should be designed for earth pressures presented on Plate 4. The nails can be design using the parameters presented on Plate 5.

## **8.8 SITE DRAINAGE**

Proper site drainage is important for the long-term performance of the planned structures, pavements, and concrete flatwork. The site should generally be graded so as to carry surface water away from the building foundation. The ground surface should slope away from the building at a minimum inclination of 4 percent in landscape areas and 2 percent in paved areas, for a minimum distance of 5 feet. The maintenance department should be instructed to not decrease the drainage gradient during future landscaping or other improvements. In addition, all roof gutters should be connected directly into a storm drainage system, or drain onto impervious surface (not splash blocks) that drain away from the structure, provided that a safety hazard is not created.

## **8.9 PAVEMENTS**

Pavements for this project will consist of asphalt concrete access driveways and parking areas, and loading dock slabs. We have made our pavement designs assuming the pavement subgrade soil will be similar to the near surface soils described in the boring logs. This assumption is based on our anticipation that grading and soil removal in the paved areas will be minimal. If site grading exposes soil other than that assumed, or import fill is used to construct pavement subgrades, we should perform additional tests to confirm or revise the recommended pavement sections for actual field conditions.

Asphalt pavement sections for this project have been calculated using Caltrans Flexible Pavement Design Method. For our analysis, a Resistance (R)-value was performed of the near surface soils. The result of the test was 13. Therefore, an R-value of 13 was used to develop recommendations for the pavement sections.

Various alternative pavement sections for various different Traffic Indices (TIs) are presented below. Each TI represents a different level of use. The owner or designer should determine which level of use best reflects the project and select appropriate pavement sections.

**ASPHALT CONCRETE PAVEMENT DESIGN**  
**R-Value = 13**

Traffic Index	AC	AB
4.0	2.5	6.0
4.5	3.0	6.5
5.0	3.0	8.0
5.5	3.0	10.0

Note: Thicknesses shown are in inches.

AC = Type B Asphalt Concrete

AB = Class 2 Aggregate Base (Minimum R-Value = 78)

We recommend that the subgrade soil, over which the pavement sections are to be placed, be moisture conditioned and compacted according to the recommendations in Table No. 1. Subgrade preparation should extend a minimum of 2 feet laterally beyond the back of curb or edge of pavement.

Paved areas should be sloped and drainage gradients maintained to carry all surface water to appropriate collection points. Surface water ponding should not be allowed anywhere on the site during or after construction. We recommend that the pavement section be isolated from non-developed areas and areas of intrusion of irrigation water from landscaped areas. Concrete curbs should extend a minimum of 2 inches below the baserock and into the subgrade to provide a barrier against drying of the subgrade

soils, and a reduction of migration of landscape water into the pavement section. Weep holes on 4 feet on centers should also be provided. In lieu of the weep holes, a more effective system is to install subdrain behind the curbs.

In addition, we recommend that all pavements conform to the following criteria:

- All trench backfills, including utility and sprinkler lines, should be properly placed and adequately compacted to provide a stable subgrade, in accordance with the compaction recommendations in Exhibit 1;
- An adequate drainage system should be provided to prevent surface water or subsurface seepage from saturating the subgrade soil;
- The asphalt concrete, aggregate base, and aggregate subbase materials should conform to Caltrans Specifications, latest edition; and
- Placement and compaction of pavements should be performed and tested in accordance to appropriate ASTM test procedures.

Concrete pavements should be a minimum of 6 inches thick, and placed on a minimum of 6 inches of Class 2 Aggregate Base over prepared subgrade as presented in Table No. 1. The concrete should have score joints no further apart than 15 feet.

## **8.10 CORROSION**

Two samples of soils from the borings near the depth of the excavation for the planned underground parking (approximately at a depth of about 4 feet), were collected during our field investigation and submitted for corrosion testing. The samples were from borings B-3 and B-5. The soils in this area were selected for corrosion testing because they will likely be in direct contact with concrete or buried metal utility lines. The samples were tested by CERCO Analytical for Redox, pH, resistivity, chloride, and sulfate in accordance with ASTM test methods, the results of which are presented in Appendix D. Also included in Appendix D is CERCO Analytical's evaluation of the corrosion test results. Since we are not corrosion specialists, a corrosion testing firm should be contacted for specific design details.

Based upon the resistivity measurement, the samples tested are classified as "corrosive" by CERCO Analytical. They recommend that all buried iron, steel, cast iron, ductile iron, galvanized steel, and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion. The chloride and sulfate ions indicate that the soils are insufficient to attach steel embedded in a concrete mortar coating.

The above are general discussions. A more detailed investigation may include more or fewer concerns, and should be directed by a corrosion expert. Soils actually in contact with concrete should be sampled and tested for sulfate content during construction and the concrete mixes used should comply with the requirements of the 1997 Uniform Building Code (UBC) based on these results. Consideration should also be given to soils in contact with concrete that will be imported to the site during construction, such as topsoil and landscaping materials. For instance, any imported soil materials should not be any more corrosive than the on-site soils and should not be classified as being more corrosive than "moderately corrosive." Also, on-site cutting and filling may result in soils contacting concrete that were not anticipated at the time of this investigation.

## **9 SEISMIC CONSIDERATIONS**

The seismicity of the region surrounding the site is discussed in detail in Section 2 "Geology, Faulting, and Seismicity" of this report. From that discussion it is important to note that the site is in a region of high seismic activity and is expected to be subjected to major shaking during the design life of the store. As a result, structures to be constructed on the site should be designed in accordance with applicable seismic provisions contained in the 2001 California Building Code (CBC).

### **9.1 LIQUEFACTION**

Soil liquefaction is a condition where saturated, granular soils undergo a substantial loss of strength and deformation due to pore pressure increase resulting from cyclic stress application induced by earthquakes. In the process, the soil acquires mobility sufficient to permit both horizontal and vertical movements if the soil mass is not confined. Soils most susceptible to liquefaction are saturated, loose, clean, uniformly graded, and fine-grained sand deposits. If liquefaction occurs, foundations resting on or within the liquefiable layer may undergo settlements. This will result in reduction of foundation stiffness and capacities.

Based on the subsurface data obtained from the borings, the groundwater level is below a depth of about 40 feet, and the materials at that depth are of sufficient density such that the potential for liquefaction at the site is low.

### **9.2 LATERAL SPREADING**

Lateral spreading is a consequence of the liquefaction, which results lateral movement towards a slope. Because liquefaction is considered to be low at this site, lateral spreading is also considered to be low.

### **9.3 SEISMIC DESIGN CRITERIA**

The site is located in a seismically active region and the proposed new structure can be expected to be subjected to moderate to strong seismic shaking during its design life. Potential seismic hazards include ground shaking, localized liquefaction, ground rupture



due to faulting, and seismic settlement. Of these, ground shaking is the only seismic hazard that may impact the site based on our investigation.

Because this site is located in the seismically active San Francisco Bay Area, we recommend that, as a minimum, the proposed development be designed in accordance with the requirements of the latest edition of the California Building Code (CBC) for Seismic Zone 4. We recommend that a soil profile factor of  $S_D$  be used with the CBC design procedure (Table 16-J). Near source seismic coefficients for acceleration and velocity,  $N_a$ ,  $N_v$ ,  $C_a$ , and  $C_v$  (CBC Tables 16-S and 16-T) should be used for calculating the design. The site is located approximately 0.8 km from the trace of the Hayward fault, a Type A Fault as designated by the 2001 CBC (ICBO, 1998). A summary of the seismic design parameters for this fault is presented below.

Design Fault	Monte Vista
Fault Type	B
Seismic Zone	4 ( $z = 0.4$ )
Soil Profile Factor (Table 16-J)	$S_c$
Near-Source Distance	4.2 km
$N_a$ (Table 16-S)	1.08
$N_v$ (Table 16-T)	1.31
$C_a$ (Table 16-Q) $0.44 \times (N_a)$	0.432
$C_v$ (Table 16-R) $0.64 \times (N_v)$	0.732



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## 10 ADDITIONAL SERVICES AND RECOMMENDATIONS

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### 10.1 ADDITIONAL SERVICES

The review of plans and specifications, and the field observations and testing during construction by Kleinfelder are an integral part of the conclusions and recommendations made in this report. If Kleinfelder is not retained for these services, the client will be assuming Kleinfelder's responsibility for any potential claims that may arise during or after construction due to the misinterpretation of the recommendations presented herein. The recommended tests, observations and consultation by Kleinfelder during construction include, but are not limited to:

- review of plans and specifications,
- observation of foundation construction,
- observation of excavations,
- in-place density testing of fills, backfills, and finished subgrade.

### 10.2 LIMITATIONS

Recommendations contained in this report are based on our field observations and subsurface explorations, limited laboratory tests, and our present knowledge of the proposed construction. The limited subsurface exploration for this study is intended only as a preliminary approach for future development.

We have prepared this report in substantial accordance with the generally accepted geotechnical engineering practice as it exists in the site area at the time of our study. No warranty, either express or implied, is made. The recommendations provided in this report are based on the assumption that a design level investigation will be conducted by Kleinfelder for specific projects. Other standards or documents referenced in any given standard cited in this report, or otherwise relied upon by the author of this report, are only mentioned in the given standard; they are not incorporated into it or "included by reference", as that latter term is used relative to contracts or other matters of law.

Land or facility use, on and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, Kleinfelder may recommend that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by Sunrise Development or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and Sunrise Development agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.

It is the client's responsibility to see that all parties to the project including the designer, contractor, subcontractors, etc., are made aware of this report in its entirety including the "Additional Services" (Section 10.1) and "Limitations" (Section 10.2) sections.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance, but in no event later than three (3) years from the date of the report. Land or facility use, on- and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else, unless specifically agreed to in advance by Kleinfelder in writing, will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party and the client agrees to defend, indemnify, and hold harmless Kleinfelder from any claim or liability associated with such unauthorized use or non-compliance.



## 11 REFERENCES

- California Building Code (2001), California Building Standards Commission.
- California Building Standards Commission (1998), California Code of Regulations, Title 24, California Building Standards Code.
- California Department of Conservation, Division of Mine and Geology (2000), Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Central Coast Region.
- California Geological Survey (2002), Seismic Hazard Zone Report for the Los Gatos 7.5-Minute Quadrangle, Santa Clara County, California: California Geological Survey, Seismic Hazard Zone Report 069.
- Cao, T., Bryant, W.A., Rowshandel, B., Branum, D., and Wills, C.J. (2003), The Revised 2002 California Probabilistic Seismic Hazards Maps, California Geological Survey, June 2003. Available at website  
[http://www.consrv.ca.gov/CGS/rghm/psha/fault\\_parameters/pdf/2002\\_CA\\_Hazard\\_Maps.pdf](http://www.consrv.ca.gov/CGS/rghm/psha/fault_parameters/pdf/2002_CA_Hazard_Maps.pdf).
- Fenton, C.H., and Hitchcock, C.S. (2001), Recent Geomorphic and Paleoseismic Investigations of Thrust Faults in Santa Clara Valley, California: in eds. Ferriz, H. and Anderson, R., Engineering Geology Practice in Northern California, California Division of Mines and Geology, Bulletin 210 and Association of Engineering Geologists, Special Publication 12, p. 239-257.
- Hart, E.W. and Bryant, W.A. (1997), Fault-Rupture Hazard Zones in California: California Division of Mines and Geology, Special Publication 42, Supplements 1 and 2 added 1993, Supplement 3 added 2003.
- Helley, E.J., Graymer, R.W., Phelps, G.A., Showalter, P.K., and Wentworth, C.M. (1994), Quaternary Geology of Santa Clara Valley, Santa Clara, Alameda and San Mateo Counties, California: U.S. Geological Survey Open-File Report 94-231.
- Helley, E. J., Lajoie, K. R., Spangle, W. E., and Blair, M. L. (1979), Flatland Deposits of San Francisco Bay Region, California - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning: USGS Professional Paper 943.
- International Conference of Building Officials (ICBO) (1998), Maps of Known Active Fault Near-Source Zones in California and Adjacent Portion of Nevada - To be used with the 1997 Uniform Building Code, prepared by the California Department of Conservation, Division of Mines and Geology in cooperation with Structural Engineers Association of California - Seismology Committee, February.

- Jennings, C.W. (1994), Fault Activity Map of California and Adjacent Areas with Locations and Ages of Recent Volcanic Eruptions, California Division of Mines and Geology.
- McLaughlin, R.J., Clark, J.C., Brabb, E.E., Helley, E.J., and Colon, C.J. (2001), Geologic Maps and Structure Sections of the Southwestern Santa Clara Valley and Southern Santa Cruz Mountains, Santa Clara and Santa Cruz Counties, California: U.S. Geological Survey, Miscellaneous Field Studies Map MF-2373, Sheet 1, Scale 1:24,000.
- Santa Clara County (2002), Geologic Hazard Zone Maps, Plate 35, dated February 26, 2002, scale 1:36,000.
- Santa Clara County (1994), Santa Clara County General Plan, Charting a Course for Santa Clara County's Future: 1995-2010, adopted December 20, 1994.
- Schlocker, J. (1970), Generalized Geologic Map of the San Francisco Bay Region, California: United States Geological Survey Open-File Report 71-246, scale 1:500,000.
- Wentworth, C.M. (1997), Geologic Materials of the San Francisco Bay Region: U.S. Geological Survey Open-File Report 97-744.
- Witter, R.C., Knudsen, K.L., Sowers, J.M., Wentworth, C.M., Koehler, R.D., Randolph, C.E., Brooks, S.K., and Gans, K.D. (2006), Maps of Quaternary Deposits and Liquefaction Susceptibility in the Central San Francisco Bay Region, California: U.S. Geological Survey Open-File Report 06-1037 (<http://pubs.usgs.gov/of/2006/1037>).

# TABLES



**TABLE NO. 1**  
**SUMMARY OF COMPACTION RECOMMENDATIONS**

Area	Compaction Recommendation <sup>(3,4)</sup>
Subgrade Preparation and Placement of General Engineered Fill <sup>(5)</sup>	Compact upper 8 inches to a minimum of 90 percent compaction at near optimum moisture content for sandy soils, and at a minimum of 2 percent over optimum moisture content for clayey soils.
Trenches <sup>(2)</sup>	Compact to a minimum of 90 percent compaction at near optimum moisture content for sandy soils.. Clayey soils shall be compacted at least 2 percent over optimum moisture content.
Building pad <sup>(1)</sup>	Compact upper 8 inches of subgrade to a minimum of 90 percent compaction at near optimum moisture content for sandy soils, and a minimum of 2 percent over optimum moisture content for clayey soils. If subgrade for below ground parking is not disturbed during excavation, recompaction and moisture conditioning is not required.
Exterior Flatwork <sup>(1)</sup>	Compact upper 8 inches of subgrade to a minimum of 90 percent compaction at near optimum moisture content for sandy soils and at a minimum of 2 percent over optimum moisture for clayey soils. Compact Class 2 aggregate base to 95 percent at near optimum moisture content in areas subject to vehicle traffic loading.
Pavements <sup>(1)</sup>	Compact upper 8 inches of subgrade to a minimum of 95 percent compaction at near optimum moisture content. Compact Class 2 aggregate base to 95 percent at near optimum moisture content.

Notes:

- 1) Depths are below finished subgrade elevation.
- 2) In landscaped areas, the percent compaction in trenches may be reduced to 85 percent.
- 3) All compaction requirements refer to relative compaction as a percentage of the laboratory standard described by ASTM D-1557. All lifts to be compacted shall be a maximum of 8 inches loose thickness.
- 4) All subgrades, fills, and backfills should be firm and stable.
- 5) Where the thickness of fill exceeds 7 feet, the portion of the fill below 7 feet needs to be compacted to a minimum of 95 percent.

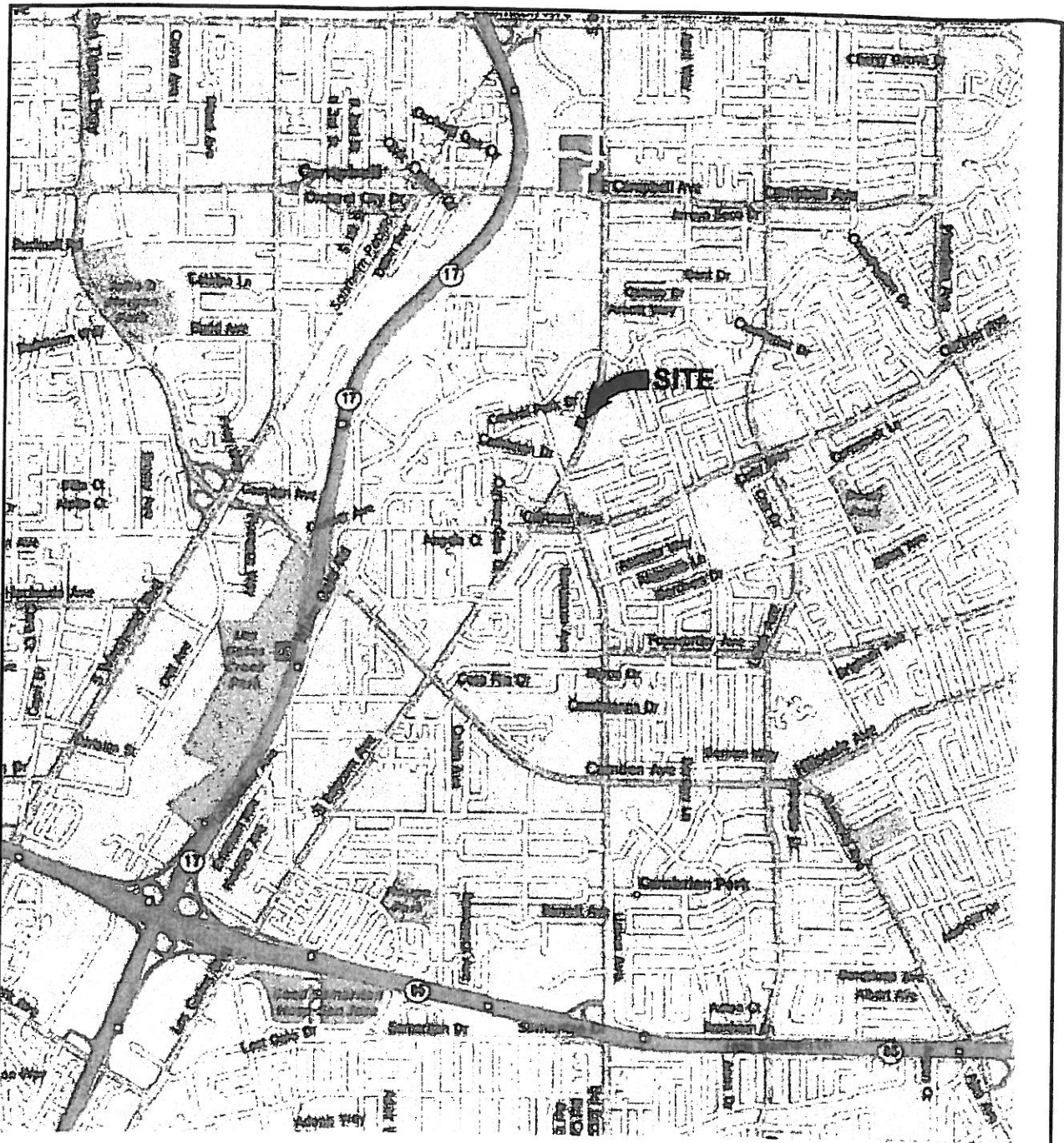




# PLATES



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2000 1000 0 2000  
 APPROXIMATE SCALE (feet)

REFERENCE:

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## **SITE VICINITY MAP**

SUNRISE ASSISTED LIVING  
 2517 SOUTH BASCOM AVE  
 SAN JOSE, CALIFORNIA

DRAWN BY: LGS

REVISED BY:

CHECKED BY: MFM

PLATE

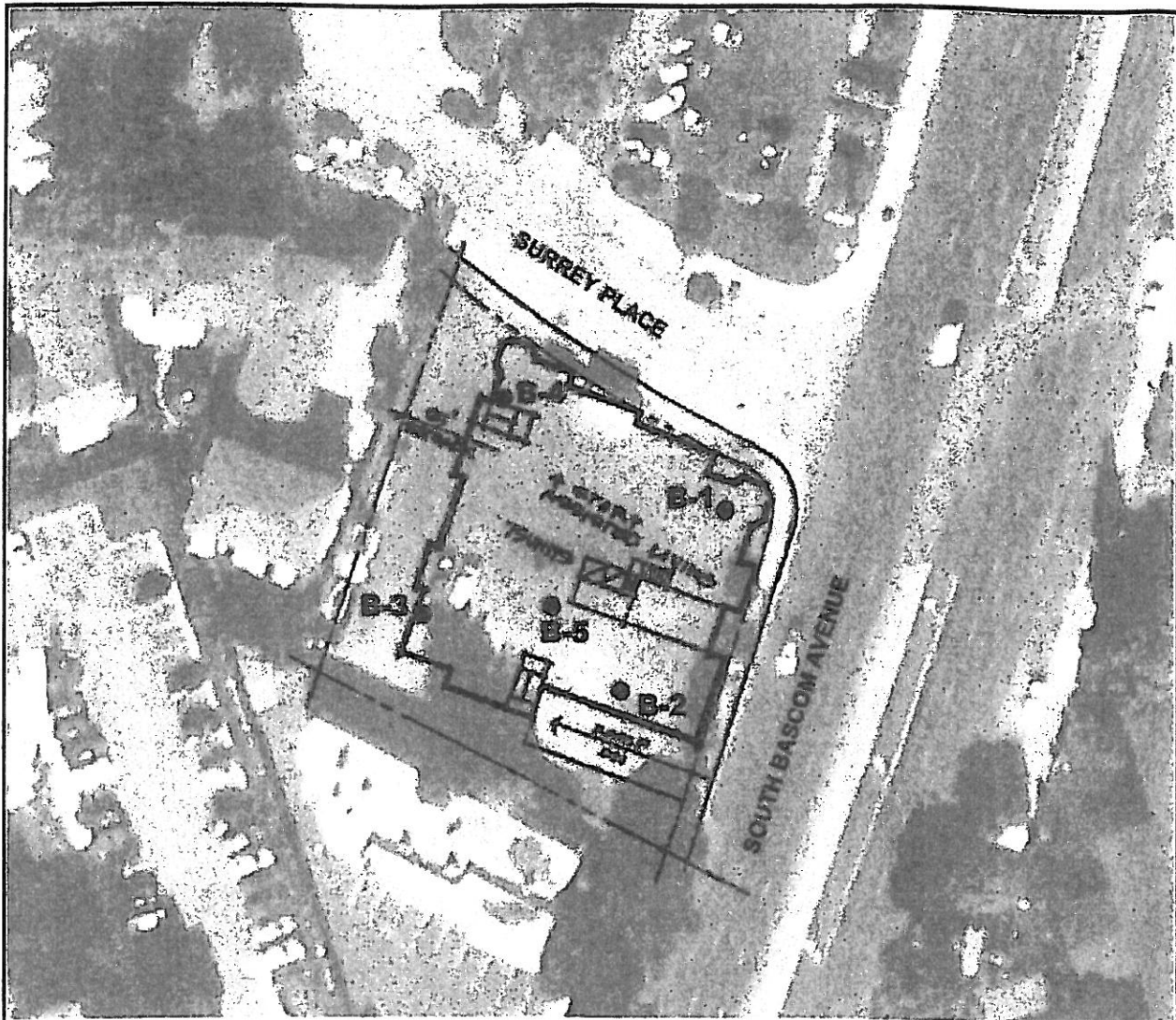
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DRAWN: JUL 2007

APPROVED BY: \_\_\_\_\_

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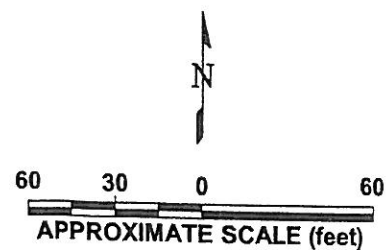


#### LEGEND

--- PROPERTY LINE

● SOIL BORING  
(by Kleinfelder, June 2007)

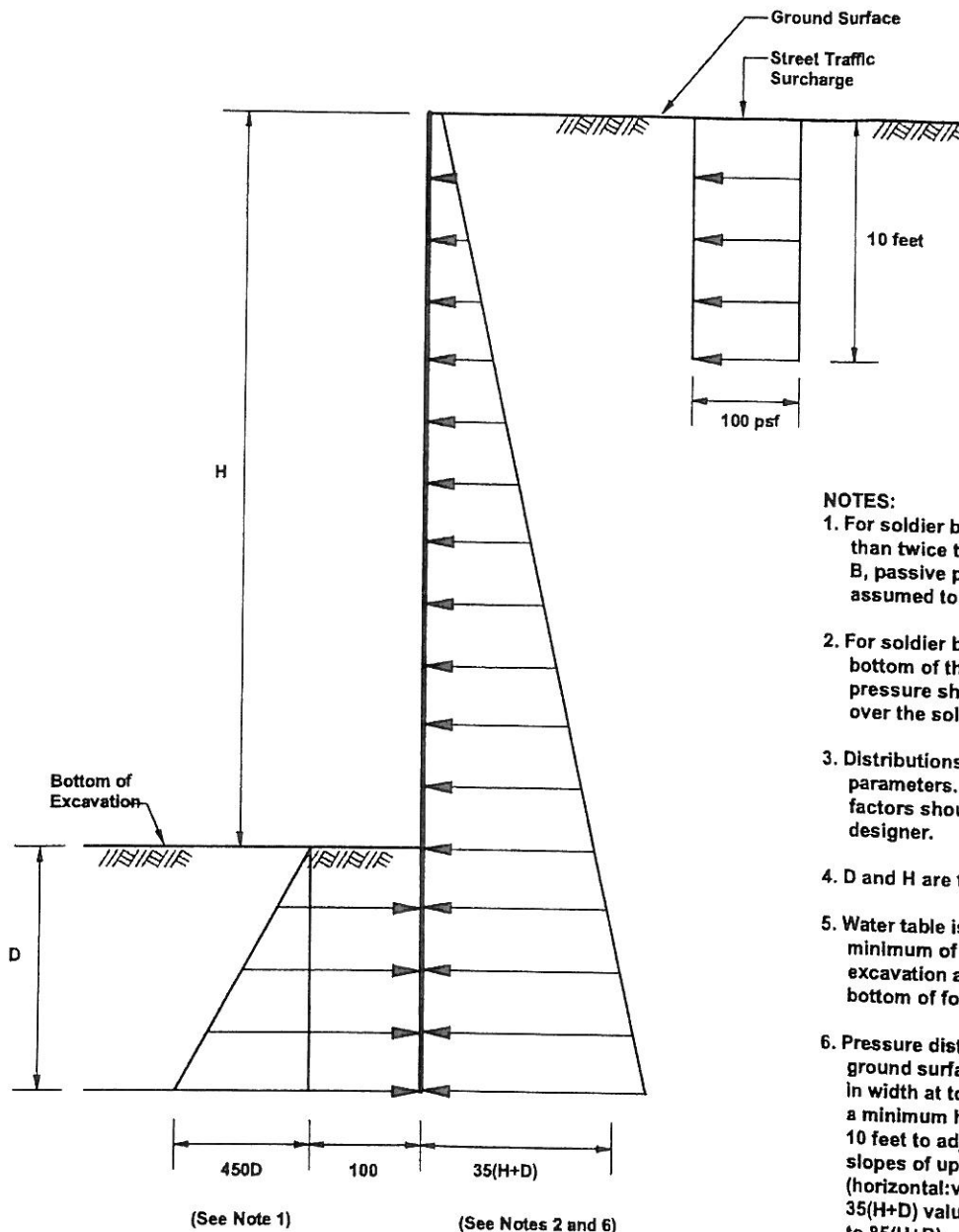
NOTE: Locations are approximate.



REFERENCE:  
Sketch received on April 24, 2007,  
from Phillip Maskiewicz.

<b>KLEINFELDER</b>  7133 Koll Center Parkway, Suite 100 Pleasanton, CA 94566 PH. 925-484-1700 FAX. 925-484-5838 www.kleinfelder.com	<b>SITE PLAN</b>		DRAWN BY: LGS
	SUNRISE ASSISTED LIVING 2517 SOUTH BASCOM AVE SAN JOSE, CALIFORNIA		REVISED BY:
			CHECKED BY: MFM
	DRAWN: JUL 2007 APPROVED BY: _____ PROJECT NO.83627-GEO FILE NAME: VIC-PLAN.dwg		PLATE  <b>2</b>

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 L:\2007\PROJ\83627\GRAPHICS\GEO1 LAYOUT: plate 3



#### NOTES:

1. For soldier beams spaced at more than twice the soldier beam width, B, passive pressure values may be assumed to act over 2B.
2. For soldier beams below the bottom of the excavation, pressure should be applied only over the soldier beam width B.
3. Distributions assume ultimate soil parameters. Appropriate safety factors should be included by the designer.
4. D and H are to be in feet.
5. Water table is assumed to be a minimum of 3 feet below mass excavation and 2 feet below bottom of footing excavation.
6. Pressure distribution is for a level ground surface of at least 10 feet in width at top of shoring, and for a minimum horizontal distance of 10 feet to adjacent buildings. For slopes of up to 1:1 (horizontal:vertical) inclination, the 35(H+D) value should be increased to 85(H+D).
7. Design is limited to H of 12 feet or less.

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### PRESSURE DISTRIBUTION FOR TEMPORARY SHORING: CANTILEVER

SUNRISE ASSISTED LIVING  
 2517 SOUTH BASCOM AVE  
 SAN JOSE, CALIFORNIA

DRAWN BY: JDS

REVISED BY:

CHECKED BY: MFM

3

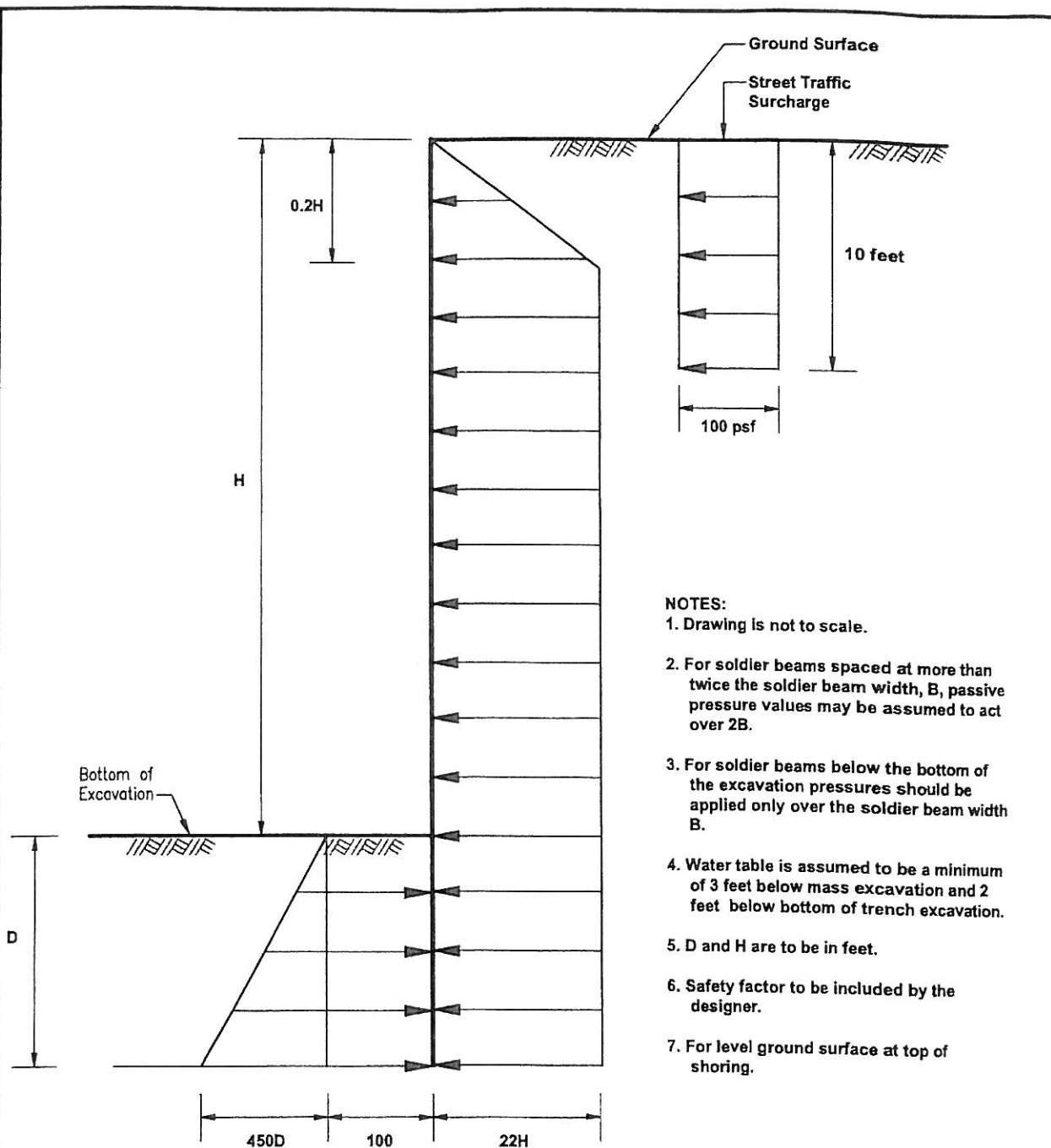
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PROJECT NO.83627-GEO FILE NAME:TIE-BACK.dwg

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L:\2007\07Projects\83627\GRAPHICS\GEOI LAYOUT: plate 4



#### NOTES:

1. Drawing is not to scale.
2. For soldier beams spaced at more than twice the soldier beam width, B, passive pressure values may be assumed to act over 2B.
3. For soldier beams below the bottom of the excavation pressures should be applied only over the soldier beam width B.
4. Water table is assumed to be a minimum of 3 feet below mass excavation and 2 feet below bottom of trench excavation.
5. D and H are to be in feet.
6. Safety factor to be included by the designer.
7. For level ground surface at top of shoring.

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### PRESSURE DISTRIBUTION FOR TEMPORARY SHORING: BRACED OR TIE-BACK

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 SAN JOSE, CALIFORNIA

DRAWN BY: JDS

REVISED BY:

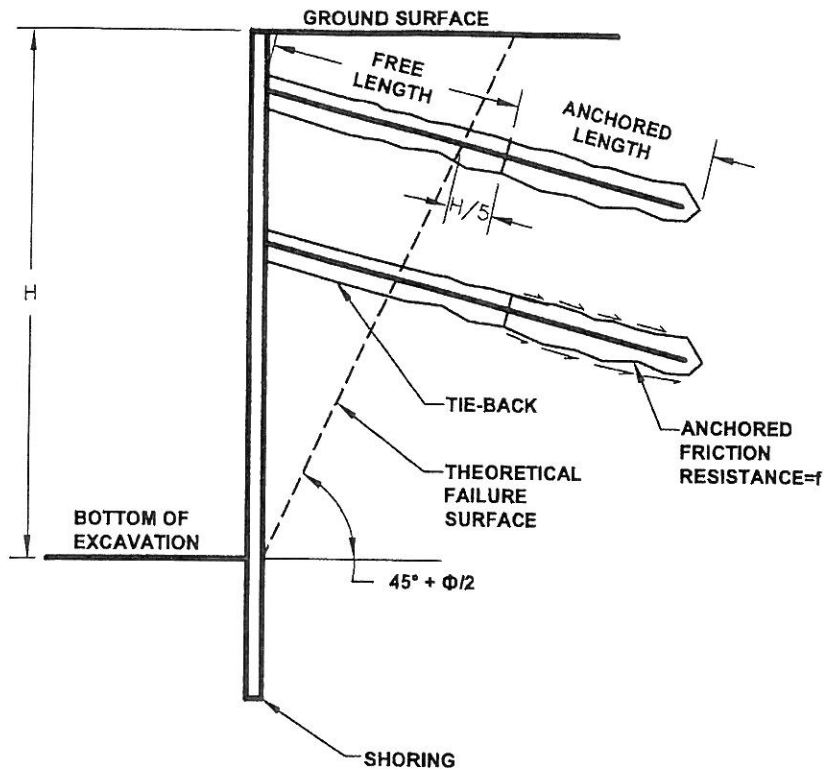
CHECKED BY: MFM

4

DRAWN: JULY 2007

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PROJECT NO.83627-GEOI FILE NAME:TIE-BACK.dwg



$$f_{ult} = \gamma h_{avg} \tan \Phi + c, \text{ where}$$

$$\gamma = 120 \text{ pcf}$$

$$h_{avg} = \text{average depth of anchor below ground surface}$$

For a rough estimate of lengths, use  $c = 100 \text{ psf}$  and  $\Phi = 34^\circ$ .

The actual lengths will need to be determined in the field. In addition, the tie-backs will need to be proof-tested.

NOT DRAWN TO SCALE

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**TIE-BACK DESIGN CRITERIA**

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2517 SOUTH BASCOM AVE  
SAN JOSE, CALIFORNIA

DRAWN BY: JDS

REVISED BY:

CHECKED BY: MFM

**5**

DRAWN: JULY 2007

APPROVED BY:

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APPENDIX B-1:

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*Phase I / Limited Phase II Environmental Site Assessment*



**PHASE I/LIMITED PHASE II  
ENVIRONMENTAL SITE ASSESSMENT  
SUNRISE ASSISTED LIVING  
2517 SOUTH BASCOM AVENUE  
SAN JOSE, CALIFORNIA**

October 29, 2007

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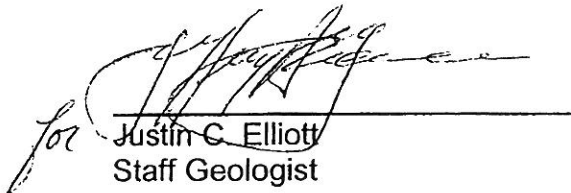


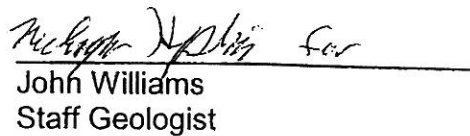
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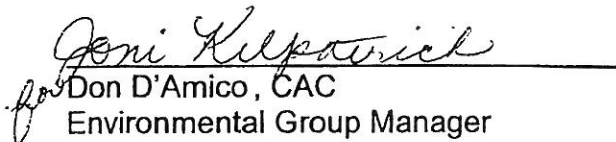
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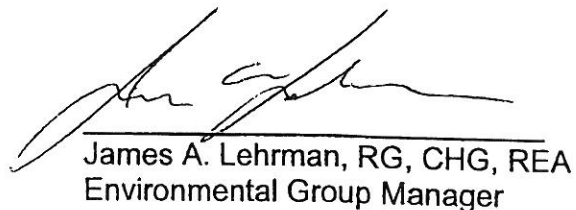
**PHASE I/LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT  
SUNRISE ASSISTED LIVING  
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SAN JOSE, CALIFORNIA**

Kleinfelder Job No. 83627.PII  
October 29, 2007

  
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Staff Geologist

  
John Williams  
Staff Geologist

  
Don D'Amico, CAC  
Environmental Group Manager

  
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Environmental Group Manager

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# Important Information About Your Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

## **Beware of Change; Keep Your Geoenvironmental Professional Advised**

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

## **Recognize the Impact of Time**

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

## **Prepare To Deal with Unanticipated Conditions**

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change,* sometimes suddenly, due to any number of events, not the least of which include occurrences at



adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered*, because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

### **Do Not Permit Any Other Party To Rely on the Report**

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

### **Avoid Misinterpretation of the Report**

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

### **Give Contractors Access to the Report**

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you by making it unquestionably clear that:* 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

### **Do Not Separate Documentation from the Report**

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

### **Understand the Role of Standards**

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care.

Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

### **Realize that Recommendations May Not Be Final**

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

### **Understand That Geotechnical Issues Have Not Been Addressed**

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The

equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need

### **Read Responsibility Provisions Closely**

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

### **Rely on Your Geoenvironmental Professional for Additional Assistance**

Membership in ASFE exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your ASFE-member geoenvironmental professional for more information.



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## 1 EXECUTIVE SUMMARY

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A Phase I / Limited Phase II Environmental Site Assessment (ESA) was conducted for Sunrise Development, Inc. for the property located at 2517 South Bascom Avenue San Jose, in Santa Clara County (See Plate 1, Site Vicinity Map). This report was prepared using the American Society of Testing and Materials (ASTM), Standard Practice for Phase I Environmental Site Assessment Process E1527-05. The subject site is approximately 0.5-acre in size and is a vacant lot. It is Kleinfelder's understanding that the subject site is the proposed location for an assisted living complex.

In summary, Kleinfelder's assessment revealed the following evidence of recognized environmental conditions (RECs) associated with the subject site:

- According to files on hand with the San Jose Fire Department (SJFD) the subject site was owned by Standard Oil and was a Chevron Service station. Three underground storage tanks were located on the subject site. According to the files the tanks were removed in 1977; however no records of sampling or other documentation was found.
- Due to the historical agricultural use of the Site, it is possible that environmentally persistent pesticides were applied to the site.

The following observation that appears to represent de minimus findings was also noted in association with the subject site:

- Three slight gravel stains and one slight depression (encompassing approximately four square feet) with some soil discoloration, were noted on the subject site.

In addition to these recognized environmental conditions, deviations, historical environmental conditions, and de minimus conditions, findings are discussed in Chapter 8 of this report. This report is subject to the limitations in Section 2.5.

Kleinfelder performed a geophysical survey and collected soil samples from the surface and from five soil borings advanced on the site. Soil boring locations were selected



based on RECs identified in the Phase I ESA portion of this investigation and the geophysical survey. Four soil samples collected from the surface were analyzed for concentrations of organochlorine pesticides and for the CAM 17 metals, identified in Title 22 of the California Code of Regulations (22 CCR). Ten soil samples collected from the below the surface from the 5 soil borings were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) in the gasoline, diesel and motor oil ranges, and cadmium, chromium, lead, nickel and zinc (LUFT 5 metals).

Organochlorine pesticides, VOCs and TPH in the gasoline range (TPH-g) were not detected at or above laboratory detection limits; detected concentrations TPH in the diesel and motor oil ranges were below Environmental Screening Levels (ESLs, see below); detected concentrations of metals were either below ESLs and/or were within the range of naturally occurring background concentrations expected for the area. Based on these results, contamination due to petroleum and pesticides does not appear to be significant.

Exploratory excavations performed at the site on July 31, 2007, revealed the remnants of a fuel system associated with the former service station on site. Excavations revealed a cluster of three 2-inch steel pipes that are most likely abandoned product lines. The vertical termini in the area of the canopy of the former service station and the 5-foot spacing of the termini suggest the location of the former dispenser island. The other end of the piping in the western portion of the site may indicate the location of the former tank pit. No tanks were found during the above-described excavation activities.

The product pipelines were removed on September 17, 2007. The product lines broke in two places during the removal process, resulting in relatively minor releases of product (one was approximately 10 gallons, and the other was approximately 1 to 2 gallons). Impacted soil was excavated and placed in drums. Soil sample results do not indicate significant petroleum contamination beneath the former lines, other than at those points where releases occurred during excavation. Due to the remaining concentrations of petroleum hydrocarbons and related compounds detected in the vicinity of those releases, Kleinfelder recommends additional over-excavation in the areas where the releases took place.

## 2 INTRODUCTION

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### 2.1. PURPOSE

Kleinfelder conducted an ESA of the subject property. Kleinfelder understands this report will assist the Client in understanding environmental conditions associated with the subject property's past and current use. Kleinfelder performed this ESA in general accordance with the scope and limitations of the American Society of Testing and Materials (ASTM); Standard Practice for Phase I Environmental Site Assessment Process E1527-05 and our proposal (PLE7P121) dated May 1, 2007.

The purpose of this assessment is to assist the Client in evaluating "recognized environmental conditions" at the Site. A recognized environmental condition is defined by the ASTM standard as "the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property." The term includes hazardous substances or petroleum products even under conditions in compliance with laws.

Kleinfelder environmental professionals conducting this site assessment included Mr. Justin C. Elliott and Mr. Don D'Amico.

### 2.2. DETAILED SCOPE-OF-SERVICES

The following Chapters describe Kleinfelder's work scope:

- Chapter 2, **Introduction**, includes a discussion of the purpose/reason for performing the Phase I ESA; additional services requested by the Client (e.g. an evaluation of business environmental risk factors associated with the property); significant assumptions (e.g. property boundaries if not marked in the field); limitations, exceptions, and special terms and conditions (e.g. contractual); and user reliance parameters.

- Chapter 3, **Site Description**, is a compilation of information concerning the Site location, legal description (if available), current and proposed use of the subject Site, a description of structures and improvements on site at the time of Kleinfelder's assessment, and adjoining property use.
- Chapter 4, **Records Review**, is a compilation of Kleinfelder's review of several databases available from the Federal, State, and local regulatory agencies regarding hazardous substance use, storage, or disposal at the subject Site; and for off-site facilities within the search distance specified in the ASTM standard. Records provided by the Client are summarized and copies of relevant documents are included in the appendices of this report. Interviews and telephone conversations conducted by Kleinfelder with regulatory agency representatives are included in Chapter 4. Physical setting sources (including topography, soil and groundwater conditions) are also summarized in this section, as is Client-provided information (i.e., title records, environmental liens, specialized knowledge, valuation reduction for environmental issues, and owner, property manager, and occupant information). Other interviews with people knowledgeable about the Site (including the Client) are included in Chapter 7.
- Chapter 5, **Historical Use of the Property and Adjoining Properties**, summarizes the history of the Site and adjoining properties. This Site history is based on various sources which may include: a review of aerial photographs, Sanborn Fire Insurance Maps, city or suburban directories, historical topographic maps, building department records, and results of previous site assessments.
- Chapter 6, **Site Reconnaissance**, describes Kleinfelder's observations during the site reconnaissance. The methodology used and limiting conditions are described.
- Chapter 7, **Interviews**, is a summary of telephone and personal interviews conducted with "Key Site Managers" that may include the owner/manager of the facility, occupants/tenants, local government officials, and the Client. Additional interview sources may be contacted if "Key Site Managers" are not available prior to production of this report and may include adjacent landowners and people with historical knowledge of the area.
- Chapter 8, **Geophysical Survey, Sampling and Analysis**, is a presentation of the procedures and results of the geophysical survey and soil sampling and

analysis performed on the site to further evaluate the RECs identified in the Phase I portion of this ESA.

- Chapter 9, **Evaluation**, is a presentation of our findings and opinions regarding the information in Chapters 3 through 8, and presents our conclusions regarding the presence of recognized environmental conditions connected with the Site, and recommendations if required by the Client.
- Chapter 10, **References**, is a summary of the resources used to compile this report.

Pertinent documentation regarding the subject Site is included in appendices of this report.

### **2.3. ADDITIONAL SERVICES**

An evaluation of business environmental risk associated with the parcel(s) was not included in Kleinfelder's scope of work. The ESA does not incorporate non-scope considerations, such as asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines.

### **2.4. SIGNIFICANT ASSUMPTIONS**

The subject property is hereafter referred to as the "Site".

### **2.5. LIMITATIONS AND EXCEPTIONS**

Phase I ESAs are non-comprehensive by nature and are unlikely to identify all environmental problems or eliminate all risk. The attached report is a qualitative assessment. Kleinfelder offers a range of investigative and engineering services to suit the needs of our Clients, including more quantitative investigations. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help you understand and better manage your risks. Since such detailed services involve greater expense, we ask our Clients to participate in identifying the

level of service, which will provide them with an acceptable level of risk. Please contact the signatories of this report if you would like to discuss this issue of risk further.

Kleinfelder performed this environmental assessment in general accordance with the guidelines set forth in the ASTM *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (Designation E-1527-05), and subsequently approved by you as our Client. No warranty, either express or implied is made. Environmental issues not specifically addressed in the report were beyond the scope of our work and not included in our evaluation.

This report may be used only by the Client and only for the purposes stated within a reasonable time from its issuance, *but in no event later than one year from the date of the report*. Associated partners and lending agencies associated directly with Sunrise Development may use this document for the same purpose as intended by Sunrise Development and Kleinfelder, provided that the associated partners and lending agencies agree with the same limitations and contract agreements between Sunrise Development and Kleinfelder. Land or facility use, on and off-site conditions, regulations, or other factors may change over time, and additional work may be required with the passage of time. Since Site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings and opinions can be considered valid only as of the date of the site visit. This report should not be relied upon after 180 days from the date of its issuance (ASTM Standard E-1527-05, Section 4.6). Any party other than Sunrise Development who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the Client or anyone else may reduce Kleinfelder's liability resulting from the use of this report.

## **2.6. SPECIAL TERMS AND CONDITIONS**

No special terms and conditions in addition to those discussed previously were agreed to either by the Client and Kleinfelder, Inc. in our Proposal (PLE7P121) dated May 1, 2007.

### 3 SITE DESCRIPTION

The Site description is presented in this chapter and describes the condition of the subject Site at the time of the Phase I ESA. The Site location is shown on Plate 1. Tables 3-1 through 3-4 summarize the physical characteristics of the subject Site and adjoining properties.

#### 3.1. LOCATION AND LEGAL DESCRIPTION

The information presented in Table 3-1 describes the physical location, legal description, as well as current and proposed uses of the subject Site. This information was obtained from review of various maps, aerial photographs, public records, interviews, and information provided by the Client.

**TABLE 3-1  
LOCATION, LEGAL DESCRIPTION, LAND USE**

PARAMETER	INFORMATION/COMMENTS
ADDRESS	2517 S Bascom Avenue San Jose, Ca.
LOCATION	The subject Site is located northwest of Bascom Road, South of Surrey Road in San Jose, California in Santa Clara County.
TOWNSHIP & RANGE	Section 35 in Township 4 South, Range 1 West, Mount Diablo Meridian.
ASSESSOR'S PARCEL NUMBER (APN)	APN :412-24-009
LEGAL DESCRIPTION	See Deed in Appendix D.
ACREAGE	Approximately 0.5 acres.
ZONING	CP (Commerical)

#### 3.2. CURRENT/PROPOSED USE OF THE PROPERTY

Land use on site and in the general vicinity appeared to be vacant land with a dirt lot, parking areas and commercial development at the time of Kleinfelder's assessment. Current and proposed uses are described in Table 3-2.



**TABLE 3-2  
CURRENT/PROPOSED USES**

GENERAL OBSERVATIONS	
<b>CURRENT USE</b>	Vacant Lot.
<b>PROPOSED USE</b>	Assisted Living Complex.

### 3.3. DESCRIPTION OF STRUCTURES/IMPROVEMENTS

At the time of Kleinfelder's assessment, the Site was a gravel lot apparently used for parking of miscellaneous vehicles. Land use in the general vicinity of the Site was both residential and commercial. Current and proposed uses are described in Table 3-2.

**TABLE 3-3  
STRUCTURES/IMPROVEMENTS**

GENERAL OBSERVATIONS	
<b>STRUCTURES</b>	No structures were observed on site.
<b>IMPROVEMENTS</b>	No Improvements were observed on site.

### 3.4. CURRENT USES OF ADJOINING PROPERTIES

Kleinfelder conducted a brief drive-by survey of the properties immediately adjacent to the subject Site on May 18, 2007. A summary of the adjoining properties is presented on Table 3-4.

**TABLE 3-4  
ADJOINING PROPERTIES**

DIRECTION	LAND USE DESCRIPTION
<b>NORTH</b>	Residential Structures.
<b>SOUTH</b>	Residential Development/ Apartments.
<b>EAST</b>	Residential Structures/ Restaurant.
<b>WEST</b>	Commercial.

Hazardous materials were not observed to be stored outside the buildings located adjacent to the Site, nor were other environmental conditions apparent at the time of Kleinfelder's site reconnaissance. With the exception of minor surface staining, observations of the Site did not indicate potential impact to the surface or subsurface by potential contaminants and/or hazardous materials. The adjoining properties, based on visual observation, did not appear likely to adversely affect the Site.

## 4 RECORDS REVIEW

### 4.1. STANDARD ENVIRONMENTAL RECORD SOURCES

The purpose of the records review is to obtain and review records that would help to evaluate recognized environmental conditions of potential concern in connection with the subject Site and bordering properties.

Federal, State and local regulatory agencies publish databases or "lists" of businesses and properties that handle hazardous materials or hazardous waste, or are the known location of a release of hazardous substances to soil and/or groundwater. These databases are available for review and/or purchase at the regulatory agencies, or the information may be obtained through a commercial database service. Kleinfelder contracted with a commercial database service, Environmental Data Resources (EDR), of Southport, Connecticut perform the government database search for listings within the appropriate ASTM minimum search distance to the Site. The EDR database search distances are summarized on Table 4-1. A description of the types of information contained in each of the databases reviewed and the agency responsible for compiling the data is also included in the EDR Radius Report (see Appendix C).

**TABLE 4-1  
RECORDS REVIEW-SEARCH DISTANCE**

FEDERAL	DISTANCE
EPA National Priority List (NPL)	1-mile
Comprehensive Environmental Response Compensation Liability Information System (CERCLIS)	½-mile
CERCLIS-NFRAP (No Further Remedial Action Planned)	Site & adjoining
Resource Conservation Recovery Act (RCRA)-CORRACTS TSDF	1-mile
RCRA-non CORRACTS TSD	½-mile
RCRA-GEN/FINDS	Site & adjoining
ERNS	Site
US Engineering Controls, US Institutional Controls	1-mile
CLEANERS	¼-mile
CORTESE (formerly Hazardous Waste Substances)	½-mile
Landfills (SWAT/SWF/LF)	½-mile
Leaking Underground Storage Tank (LUST)	½-mile
Site Mitigation and Brownfields Reuse Program Database	½-mile
SLIC (Spills, Leaks, Investigations, & Clean-up)	½-mile
Toxic Chemical Release Inventory System (TRIS)	½-mile
Waste Discharge System (CA WDS)	½-mile



**TABLE 4-1 (Continued)**  
**RECORDS REVIEW-SEARCH DISTANCE**

FEDERAL	DISTANCE
Cal-Sites, Envirostor, Bond Expenditure Plan (BEP), Annual Work Plan (AWP)	1-mile
Solid Waste Information System (SWIS)	1-mile
DEED	Site
Environmental Liens	Site
Above Ground Storage Tank	Site & adjoining
California Hazardous Materials Information System (CHMIRS)	Site & adjoining
FINDS	Site & adjoining
HAZNET	Site & adjoining
UST, CaFID, HistUST	Site & adjoining

#### 4.2. RESULTS OF DATABASE SEARCH

The following section contains information on the results of EDR's record search. The subject Site was not listed on regulatory agency databases researched by EDR.

Off site, 15 facilities were listed on regulatory agency databases researched by EDR as follows:

Stinson Construction, located at 915 Dry Creek Road, approximately 700 feet north-northwest of the subject site is listed on the LUST, and Cortese databases due to a leaking underground diesel storage tank. According to EDR, the leak impacted soil only and the case was closed on September 12, 1991.

Cosentino Vegetable Haven, located at 2666 South Bascom Avenue, approximately 870 feet south-southwest of the subject site appears on the LUST, and Cortese databases due to a leaking underground storage tank. According to the EDR, report the leak impacted soil only and the case was closed on January 26, 1994.

Brookside Development Inc. located at 2380 South Bascom Avenue, approximately 900 feet north-northeast of the subject site appears on the LUST database due to a leaking underground gasoline storage tank. According to EDR, the leak impacted the drinking water aquifer. The facility is listed as case closed on August 20, 2001.

Quick Stop #34, located at 2704 South Bascom Avenue, approximately 1100 feet south-southwest of the subject site is listed on the LUST database due to a leaking underground gasoline storage tank. According to EDR, the leak impacted soil only and the case was closed on December 4, 2003.

Mello Pipelines, located at 206 McGlincey Lane, approximately 1,200 feet west-northwest of the subject site appears on the LUST and Cortese databases due to a leaking underground gasoline storage tank. According to EDR, the leak impacted soil only and the case is listed as closed on August 30, 1995.

Tomra Pacific Inc/ Cosentinis Market, located at 2666 South Bascom Avenue, approximately 1,470 feet south-southwest of the subject site appears on the SWRCY database due to being a recycler. According to EDR, the recycler began operating in 2006 and is still operating

Unocal #4386, located at 2690 Union Avenue, approximately 1,540 feet south of the subject site appears on the LUST database due to a leaking underground gasoline storage tank. According to EDR, the leak impacted the drinking water aquifer and remedial action is underway at the facility.

Paradisco Property, located at 2275 Dry Creek Road, approximately 1,600 feet north-northeast of the subject site appears on the LUST and Cortese databases due to a leaking underground diesel storage tank. According to EDR, the leak impacted soil only and the case is listed as closed on August 3, 1999.

Chushman Construction, located at 420 McGlincey Lane, approximately 1,760 feet west-northwest of the subject site appears on the LUST and Cortese databases due to a leaking underground gasoline storage tank. According to EDR, the leak impacted the drinking water aquifer. The case is listed as closed as of November 20, 1990.

Arthur Concrete Associates, located at 480 McGlincey Lane, approximately 1,940 feet west-northwest of the subject site appears on the LUST database due to a leaking underground gasoline storage tank. According to EDR, the leak impacted soil only and the case was closed on April 20, 1995.

Rain Gutter Service, located at 720 Curtner, approximately 2050 feet southwest of the subject site appears on the Cortese databases. No other information is provided by EDR.

Pacific Surfacing, located at 520 West Chester Drive, approximately 2,230 feet west-southwest of the subject site appears on the LUST and Cortese databases due to a leaking underground diesel storage tank. According to EDR, the leak impacted soil only and the case was closed on November 29, 1995.

West Valley Construction, located 580 McGlincey Lane, approximately 2,320 feet west of the subject site appears on the LUST and Cortese databases due to a leaking underground diesel storage tank. According to EDR, the leak impacted soil only and the case was closed on December 1, 1999.

Bauer Concrete, located at 615 McGlincey Lane, approximately 2,450 feet west of the subject site appears on the LUST and Cortese databases due to a leaking underground gasoline storage tank. According to EDR, the leak impacted soil only and the case was closed on April 11, 1997.

Pacific Aerospace Service, located at 354 East McGlincey Lane, approximately 2,940 feet west of the subject site appears on the Envirostor database and the status is listed as active.

Sites not plotted by EDR due to poor or inadequate address information are referred to as orphan sites. There are 12 unmapped sites in the EDR Report. The orphan summary/unmapped sites report was reviewed to assess the potential for off-site properties to be listed on databases that fall within the ASTM search distances. Based on our review these orphan sites appear to be either discussed previously or are outside of the ASTM search distances.

#### **4.3. OTHER RECORDS REVIEWED**

The following additional sources of environmental records were reviewed during this Phase I ESA for the purposes of meeting the ASTM standard. Local regulatory agencies were contacted for reasonably ascertainable and practically reviewable

documentation regarding recognized environmental conditions present at the subject Site and adjacent facilities (Interview documentation is included in Appendix D). Interviews with local regulatory agency representatives are included in Chapter 7 of this report. The following agencies were contacted for documentation.

- ☐ ..... Santa Clara County Air District
- ☒ ..... Santa Clara Valley Water Board
- ☐ ..... Santa Clara County Planning Department
- ☒ ..... Santa Clara County Department Environmental Health (SCCDEH)
- ☒ ..... San Jose Building Department
- ☒ ..... San Jose Fire Department
- ☒ ..... San Francisco Bay Water Quality Control Board (SFBWQCB)
- ☐ ..... State of California, Department of Conservation, Division of Oil and Gas
- ☒ ..... State of California, Department of Toxic Substances Control
- ☒ ..... State of California, Fire Marshal, Pipeline Safety Office

The Santa Clara County Air District was not contacted because the Site and adjacent facilities are not likely to operate under air permits. The San Jose Building Department was not contacted because information concerning building permits were obtained from the internet web site ([www.sjpermits.ca.gov](http://www.sjpermits.ca.gov)). The State of California, Department of Conservation, Division of Oil and Gas was not contacted because information concerning oil and gas fields was obtained from published maps available for download on their internet web site ([www.consrv.ca.gov](http://www.consrv.ca.gov)). Map findings are discussed in Table 4-2.

#### Santa Clara County Department Environmental Health (SCCDEH)

Kleinfelder contacted the SCCDEH for additional information regarding the subject site and the following facilities. According to Rubin, the SCCDEH does not have jurisdiction for 2517 South Bascom Avenue.

#### San Jose Building Department (SJBD)

Kleinfelder contacted the San Jose Building Departments website regarding permits for building located onsite. No files were found according to the City's website.

#### Santa Clara Valley Water Board (SCVWB)

Kleinfelder contacted the SCVWB for information regarding underground storage tanks. According to Roberta, the SCVWB released their files to the SCCDEH.

#### San Francisco Bay Water Quality Control Board (SFBWQCB)

Kleinfelder contacted RWQCB for information regarding underground storage tanks HIST and UST permits. According to Medlinda (Clerk), there are no files for 2517 S. Bascom Avenue.

#### San Jose Fire Department (SJFD)

Kleinfelder contacted the SJFD regarding UST permits and hazardous materials. According files reviewed at SJFD, a Service station owned by Standard Oil was abandoned in March 8, 1976, with violations regarding Fire Prevention Permit. The three underground tanks were apparently abandoned in August 1977. A copy of these records are located in Appendix D.

#### State of California, Department of Toxic Substances Control (DTSC)

Kleinfelder contacted DTSC regarding information regarding hazardous waste and/or storage. According to a letter dated May 9, 2007, DTSC has no files for the subject site.

#### State of California, Fire Marshal, Pipeline Safety Office

Kleinfelder requested a search of records for gas pipelines in the vicinity of the subject site. According to a letter received on May 11, 2007, there are no pipelines under the SCFMPSO jurisdiction on the subject site.

#### Department of Conservation, Division of Oil and Gas

Kleinfelder visited the Department of Conservation, Division of Oil and Gas website on May 16, 2007 regarding oil and gas well located on site. According to the maps, it appears that no oil and gas wells were drilled on site.

#### 4.4. PHYSICAL SETTING SOURCE(S)

Table 4-2 presents information about the physical setting of the Site. This information was obtained from published maps. A geotechnical investigation report was not provided for Kleinfelder to review.

**TABLE 4-2  
PHYSICAL SETTING**

<b>USGS TOPOGRAPHIC QUADRANGLE</b>	San Jose West, California Quadrangle, 7.5 Minute Series (Topographic), 1961, (photo-inspected 1980).	The Site is located at an approximate elevation of 210 feet above mean sea level (msl) and is relatively flat. There were no wells and no structures depicted on the subject site. South Bascom Road appears south of the site and Surrey Road appears north of the site.
<b>GEOLOGIC MAP</b>	Regional Geologic Map Series, San Francisco-San Jose Quadrangle, Map No. 5A, 1991, Scale: 1 inch = 3.95 miles	The subject site and the adjacent properties are shown as alluvium.
<b>SOIL TYPE</b>	EDR Report	Botella Silty Clay loam (Silt-Clay materials with more than 35 percent passing No. 200 seive.)
<b>OIL AND GAS FIELDS</b>	Division of Oil and Gas Website ( <a href="http://www.consrv.ca.gov/dog">www.consrv.ca.gov/dog</a> )	Published maps available from the Department of Conservation, Division of Oil, Gas, and Geothermal Resources depicted no oil and gas well located on site.

Information about the regional geology is presented on Table 4-3. This information was obtained from published data and maps, interviews with public agencies, and/or from previous investigations conducted by Kleinfelder in the vicinity of the Site.

**TABLE 4-3  
REGIONAL GEOLOGY AND HYDROGEOLOGY**

PHYSICAL PARAMETER	INFORMATION/COMMENTS
<b>REGIONAL GEOMORPHIC PROVINCE</b> (Source: Norris and Web, 1990)	Quaternary Alluvium
<b>DEPTH TO REGIONAL GROUNDWATER<sup>1</sup></b> (Source: Seismic Hazard Zone Report for the San Jose West 7.5 Minute Quadrangle, Santa Clara County 2002)	According to published maps it appears that depth to ground water is approximately 40-50 feet below ground surface.
<b>DIRECTION OF ANTICIPATED FLOW<sup>1</sup></b> (Source: Seismic Hazard Zone Report for the San Jose West 7.5 Minute Quadrangle, Santa Clara County 2002)	The estimated direction of groundwater flow is to the northeast.
<b>FLOOD ZONE DESIGNATION</b> (Source: EDR)	According to the EDR regulatory agency database search report, the subject Site is not located within the 100-year flood zone, however, the subject site lies within a 500-year flood zone.

<sup>1</sup> Groundwater flow direction and depth to regional groundwater is based on regional information sources. Site-specific conditions may vary due to a variety of factors including geologic anomalies, utilities, nearby pumping wells (if present), and other developments.

#### 4.5. USER PROVIDED INFORMATION

According to Client, the purpose for performing this Phase I ESA is to satisfy one or more of the requirements for the innocent landholder defense to liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Information regarding current owner/occupant is listed in Table 4-4.

**TABLE 4-4  
OWNER/OCCUPANT INFORMATION**

ENTITY	NAME
<b>OWNER</b>	Lena Basso, William Benevento.
<b>PROPERTY MANAGER</b>	Lena Basso, William Benevento.
<b>OCCUPANT</b>	None.

Interview of key individuals are provided in Chapter 7. The following section presents information provided by the Client.



#### **4.5.1. Title Records**

A Preliminary Title Report was provided to Kleinfelder for review prior to production of this report. A copy of this report is included in Appendix D. These documents may provide information about land including ownership and other interests in the land, easements, and liens. The following information was included in the Title Report.

- Lena Basso, Trustee of Richard and Lena Basso 1987 Trust Created by Trust Agreement dated September 21, 1987, is announced  $\frac{1}{2}$  vested owner of the Deed as of October 29, 1997.
- William R. Benevento and Betty Benevento, of the William and Betty Benevento 1987 Trust announced  $\frac{1}{2}$  vested Deed as of October 29, 1997.
- A legal description of the property is also provided.

#### **4.5.2. Environmental Liens**

Based on information provided in the Chain-of-Title report and the EDR regulatory agency database search report (EDR, 2007), there are no liens listed in the United States Environmental Protection Agency's (US EPA's) Federal Superfund Liens List, and no known recorded land-use environmental deed restrictions pertaining to the subject Site listed in the State liens database. A copy of this report is available in Appendix B.

#### **4.5.3. Value Reduction**

As part of the ASTM E 1527-05 process, information must be gathered regarding the prospective purchase price of the property relative to the fair market value of the subject Site. If there appears to be a value reduction, that reduction must be identified with respect to whether the difference could be attributed to environmental degradation of the property. Kleinfelder was unable to contact Mr. Phillip Maskiewicz regarding purchase price for the property.



#### **4.5.4. Other**

Kleinfelder was not provided with previous assessments for the subject site.

## 5 HISTORICAL USE OF THE PROPERTY AND ADJOINING PROPERTIES

The history of the Site was researched to identify obvious uses. Historical land use was researched to the first developed use, or back to 1940, whichever is earlier or readily available. Table 5-1 summarizes the availability of information reviewed during this assessment.

**TABLE 5-1  
HISTORICAL SOURCES**

	YEARS REVIEWED	AVAILABILITY
<b>AERIAL PHOTOGRAPHS</b>	1939, 1956, 1965, 1982, 1993, 1998	EDR Aerial Photo Decade Package.
<b>SANBORN FIRE INSURANCE MAPS</b>	None Available	None.
<b>POLK AND HAINES CRISS-CROSS DIRECTORIES</b>	Five year increments from 1970 through 2004	EDR City Directory.
<b>HISTORICAL TOPOGRAPHIC MAP REPORT</b>	1953, 1961, 1961 photorevised 1968, 1961 photorevised 1973, 1961 photorevised 1980.	EDR Historical Topographic Map Report.
<b>BUILDING DEPARTMENT</b>	All Available	The San Jose Building Department's website was accessed.
<b>PREVIOUS ASSESSMENT(S)</b>	None	Kleinfelder was not provided with previous assessments.
<b>CHAIN-OF-TITLE OR PRELIMINARY TITLE REPORT<sup>1</sup></b>	1997	Kleinfelder was provided with a Chain-of-Title Preliminary Report, and is discussed in Section 4.5.1.

<sup>1</sup> Title report information is further described in Section 4.5.1.

### 5.1. AERIAL PHOTOGRAPHS

A review of historical aerial photography may indicate past activities at a Site that may not be documented by other means, or observed during a Site visit. The effectiveness of this technique depends on the scale and quality of the photographs and the available coverage. Aerial photographs were obtained from several historical photograph collections through EDR. Aerial photographs covering 59 years were available during the time frame that this report was being prepared. A summary of the aerial photographs reviewed is presented in Table 5-2. Copies of the reviewed aerial photographs are included in Appendix B.

**TABLE 5-2  
AERIAL PHOTOGRAPHS**

DATE	APPROXIMATE SCALE	TYPE	SOURCE	QUALITY
1936	1" = 555'	Black and White Monoscopic	EDR, Inc./Fairchild	Poor
1956	1" = 555'	Black and White Monoscopic	EDR, Inc./Aero	Fair
1965	1" = 333'	Black and White Monoscopic	EDR, Inc./Cartwright	Good
1974	1" = 1320'	Color Stereoscopic	USGS	Very Good
1982	1" = 690'	Black and White Monoscopic	EDR, Inc./WSA	Fair
1993	1" = 666'	Black and White Monoscopic	EDR, Inc./USGS	Good
1998	1" = 666'	Black and White Monoscopic	EDR, Inc./USGS	Fair

**Note:** Aerial photographs only provide information on indications of land use and no conclusions regarding the release of hazardous substances or petroleum products can be drawn from the review of photographs alone. The Site boundaries were approximated during the early years, because physical features were not always readily apparent.

#### 5.1.1. Subject Site

In **1939** and **1956** the subject site appears to be an orchard.

In **1965** the subject site appears to be undeveloped, and the orchard appears to have been removed.

In **1974** the subject site appears to be developed as a gasoline service station.

In **1982**, **1993**, and **1998** the subject site appears vacant.

#### 5.1.2. Surrounding Areas

In **1939**, land use surrounding the subject site appeared to be orchards. Bascom Road appears west of the subject site. A stream is present north of the subject site.

In **1956**, abundantly more residential houses appear scattered around the subject site.

By **1965**, the previously noted surrounding orchards appear as vacant land and more residential development is noted.

In **1974**, **1982**, **1993**, and **1998**, the surrounding properties are predominately residential.

The aerial photograph review did not identify environmental concerns on the surrounding properties that suggest evidence of a recognized environmental condition to the subject site.

## **5.2. SANBORN FIRE INSURANCE MAPS**

Sanborn Fire Insurance Maps provide historical land use information for some metropolitan and small-established towns. Kleinfelder, Inc. requested a search of Sanborn Fire Insurance Maps by EDR. There was no Sanborn Map coverage for the subject site.

## **5.3. POLK AND HAINES CRISS-CROSS DIRECTORIES**

Polk City Directories and Haines Criss-Cross Directories provide information regarding property occupants by address. These directories were reviewed by EDR, Inc. and summarized in a report contained in Appendix B. The review was conducted in approximately 5-year increments. In summary, the subject site was not listed.

One facility that may have handled hazardous materials is Hudson Oil, listed at 2380 South Bascom Avenue in 1975.

## **5.4. HISTORICAL TOPOGRAPHIC MAP REVIEW**

Kleinfelder contacted EDR for information regarding historical topographic maps of the Site vicinity. The topographic maps reviewed for this assessment are listed below in Table 5-3. Copies of the maps are included in Appendix B.

**TABLE 5-3  
HISTORICAL TOPOGRAPHIC MAPS REVIEWED**

YEAR	QUADRANGLE	SERIES	SCALE
1953	San Jose West	7.5 minute	1:24,000
1961	San Jose West	7.5 minute	1:24,000
1968 <i>photorevised</i> 1961	San Jose West	7.5 minute	1:24,000
1973 <i>photorevised</i> 1961	San Jose West	7.5 minute	1:24,000
1980 <i>photorevised</i> 1961	San Jose West	7.5 minute	1:24,000

#### **5.4.1. Subject Site**

In **1953** and **1961**, the subject site was depicted as orchard.

By **1968**, the subject site appears to be within Cambrian Village City limits.

In **1973** and **1980**, the subject site remained the same as shown in 1968.

#### **5.4.2. Surrounding Areas**

In **1953**, the surrounding properties appear to be orchards. Bascom Avenue is present. Dry Creek appears north of the subject site.

By **1961**, the incorporated city centers are noted for Campbell, Cambrian Village, and San Jose. Residential structures appear around the subject site.

In **1968**, more residential structures appear around the subject site.

In **1973** and **1980**, the surrounding properties remained generally the same with the exception of additional residential areas appearing around the subject site.

### **5.5. BUILDING DEPARTMENT RECORDS**

The San Jose Building and Planning Departments website was accessed to obtain building permits. According to the City of San Jose's records, the Site is zoned as CP for commercial use.

## **5.6. PREVIOUS ASSESSMENTS**

Kleinfelder was not provided with a previous assessment for the subject site.

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## 6 SITE RECONNAISSANCE

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Kleinfelder's assessment activities included a site reconnaissance. This chapter summarizes the findings from the site reconnaissance.

### 6.1. METHODOLOGY AND LIMITING CONDITIONS

A representative from Kleinfelder, Mr. Justin C. Elliott Staff Geologist, conducted a site reconnaissance on May 18, 2007 to assess and photograph present Site conditions. Weather at the time of the site visit was cool and clear with a moderate breeze. The approximate Site boundaries are shown on Plate 2, "Site Map," and color photographs of the Site are presented on Plate 4. The Site conditions discussed below are limited to readily apparent environmental conditions observed.

### 6.2. GENERAL SITE SETTING

The site is approximately 1/2-acre in size and consist of a gravel parking lot. North, south and east of the site residential houses were noted. Southwest of the site a business was observed. The site is located on fairly level terrain. The majority of the subject site consisted of gravel parking lot. Three small gravel stains were noted in the vicinity of the northwestern border of the subject site. Three underground utility boxes were noted near the eastern border of the site. One storm drain was located on the northeastern border of the site. Approximately eight slight depressions, each encompassing approximately four square feet, were noted in the gravel parking lot, one of which appeared to have some slight discoloration. The discoloration appeared to be limited to the surface.

### 6.3. SITE OBSERVATIONS

Site observations are further described in Table 6-1.

**TABLE 6-1  
SITE OBSERVATIONS**

General Observations	Remarks	Observed	Not Observed
Current Use	Gravel Parking Lot.	X	
Current use likely to indicate RECs			X
Past Use	Standard Oil Service Station.		X
Past use likely to indicate RECs	Gas/Service Station		X
Structures			X
Roads			X
Topography of Site and surrounding area	Relatively level.	X	
Interior and exterior observations of environmental conditions that may involve the use, storage, disposal or generation of hazardous substances or petroleum products.		Observed	Not Observed
Aboveground storage tank (AST)			X
Air Emissions			X
Asbestos and lead			X
Below grade vaults	Three underground vaults were noted along the eastern and southern border of the site.	X	
Burned or buried debris			X
Chemical storage			X
Chemical mixing areas			X
Discolored soil or water	Three gravel stains were noted along the northern border.	X	
Ditches, streams			X
Drains and piping (e.g. floor drains, floor trenches, bay drains, sand traps, grease traps)			X
Drums			X
Electrical or hydraulic equipment (Polychlorinated biphenyls [PCBs])			X
Farm waste (e.g. feedlot spoils or manure stockpile)			X
Fill dirt from an unknown source.			X
Fill dirt from a known source			X
Hazardous chemical and petroleum products in connection with <i>known</i> use.			X
Hazardous chemical and petroleum products in connection with <i>unknown</i> use.			X
Non-hazardous containers with contents			X
Hazardous Waste Storage			X
Heating and cooling system and fuel source			X
Industrial waste treatment equipment			X



**TABLE 6-1 (continued)**  
**SITE OBSERVATIONS**

Interior and exterior observations of environmental conditions that may involve the use, storage, disposal, or generation of hazardous substances or petroleum products.		Observed	Not Observed
Loading and unloading areas			X
Odors			X
Pits, Ponds, or Lagoons			X
Pools of Liquid			X
Process waste water			X
Sanitary Sewer System			X
Septic system (e.g. tank and leach fields)			X
Soil piles			X
Solid Waste/Evidence of Unauthorized Dumping			X
Stained pavement, soil or concrete	Three slight gravel stains and one discolored depression.		X
Stains or corrosion (interior, non-water)			X
Storm drains/catch basins	One storm drain was noted along Surrey Road.	X	
Stressed vegetation			X
Sumps & clarifiers			X
Surface water			X
Underground storage tank(s) (including heating oil tanks)	According to records received from SJFD approximately three underground storage tanks were located on the property and removed in October 1977.		X
Unidentified substance containers			X
Utilities	Three underground vaults associated with utilities were observed around the northern and eastern borders of the site.	X	
Waste Water Discharge			X
Water supplies (potable and process)			X
Wells (irrigation, monitoring, or domestic)			X
Wells (dry)			X
Wells (Oil and Gas)			X

#### **6.4. RESULTS OF SITE RECONNAISSANCE**

Three small stains were noted on the gravel in the vicinity of the northwestern border of the subject site. A slight depression with some discoloration was also noted on the site. No stressed vegetation, hazardous materials, ASTs, USTs, pits, ponds, or lagoons were observed at the subject site during the site reconnaissance.

## **7 INTERVIEWS**

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Kleinfelder attempted to contact "Key Site Managers" in order to obtain current and historical environmental information concerning the subject site. The following sections highlight information revealed during the interviews. Interview documentation is available in Appendix D.

### **7.1. INTERVIEW WITH OWNER/MANAGER**

William Benvenuto (Current Owner):

William Benvenuto was interviewed by telephone on May 22, 2007 regarding information on the subject site. According to Mr. Benevento, the service station was a Chevron station, and operated up to 30 years ago. Mr. Beneventos family has owned the site for the last 35 years. Mr. Benevento did not know if the USTs had been removed from the site. The site has been a vacant lot used mainly for overflow parking for differing businesses. Mr. Benevento was unaware of any sampling that has occurred at the site. Mr. Benevento was also unaware when the service station's building was demolished.

### **7.2. INTERVIEW WITH OCCUPANTS**

No occupants were provided to Kleinfelder for this assessment.

### **7.3. INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS**

Local government officials were interviewed to obtain further information about environmental enforcement actions pending or ongoing at the Site and adjacent facilities, or relevant permits (e.g. building, air quality, well abandonment, etc.) for the Site and adjacent facilities. Interviews conducted with local government officials are described in Section 4.2.

### **7.4. INTERVIEW WITH CLIENT/OTHERS**

No Clients or others were interviewed.

## **8 GEOPHYSICAL SURVEY, SAMPLING AND ANALYSIS**

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Kleinfelder performed a geophysical survey and collected soil samples from the surface and from five soil borings advanced at the site. Soil boring locations were selected based on RECs identified in the Phase I ESA portion of this investigation, and on the geophysical investigation. Four soil samples collected from the surface were analyzed for concentrations of organochlorine pesticides and for the CAM 17 metals, identified in Title 22 of the California Code of Regulations (22 CCR). Ten soil samples collected from the below the surface from the 5 soil borings were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) in the gasoline, diesel and motor oil ranges, and cadmium, chromium, lead, nickel and zinc (LUFT 5 metals).

Four geophysical anomalies and a suspected storm drain pipeline were identified in the geophysical survey. These geophysical anomalies may be associated with abandoned underground storage tanks (USTs).

Organochlorine pesticides, VOCs and TPH in the gasoline range (TPH-g) were not detected at or above laboratory detection limits; detected concentrations TPH in the diesel and motor oil ranges were below Environmental Screening Levels (ESLs, see below); detected concentrations of metals were either below ESLs and/or were within the range of naturally occurring background concentrations expected for the area.

### **8.1. PURPOSE AND SCOPE OF WORK**

The Phase II portion of this ESA investigation was performed as a follow-up to evaluate RECs identified in the Phase I portion of the ESA. RECs identified in the Phase I portion of the ESA comprise a former Chevron station on the site, and past agricultural use of the site during which environmentally persistent pesticides may have been used.

The scope of work for this portion of the investigation includes a geophysical survey, advancement of 5 soil borings, collection and analysis of fourteen soil samples, and preparation of this report section. Soil borings were advanced to collect soil samples for both environmental and geotechnical investigations. This work was performed in general accordance with our proposal dated May 1, 2007.

## **8.2. FIELD PROCEDURES**

Kleinfelder performed a geophysical survey at the site on June 11, 2007. Kleinfelder advanced five soil borings at the site on June 13 and 14, 2007. This work was performed under Kleinfelder's direction by subcontractors.

### **8.2.1. Geophysical Survey**

On June 11, 2007, Kleinfelder conducted a geophysical survey of the site to evaluate the possible presence of below grade structures that could contribute to onsite contamination. NorCal Geophysical Consultants, Inc. of Cotati, California (NorCaL), Kleinfelder's subcontractor, completed the geophysical survey using the following methods: Vertical Magnetic Gradient (VMG), Electromagnetic Metal Detection (MD), and Ground Penetrating Radar (GPR). These methods are described in detail in a report from NorCal, included as Appendix E.

### **8.2.2. Soil Borings**

On June 13 and 14, 2007, Kleinfelder collected soil samples from five soil borings advanced at the site. Prior to drilling, Kleinfelder notified Underground Service Alert of our intention to drill with the required 48-hour advance notice. The boring locations were cleared using geophysical methods at the time of the geophysical survey. Santa Clara Valley Water District does not require permits for borings with depths less than 45 feet bgs, so permits were not obtained for this work.

Five soil borings were drilled for environmental and geotechnical investigations. HEW Drilling Company, Inc. of Palo Alto, California, Kleinfelder's subcontractor, provided drilling services for the five soil borings, shown on Plate 3. Soil borings were advanced using six-inch hollow stem augers and a truck-mounted CME-75 drill rig. Environmental soil samples were collected using a Modified California split-spoon sampler with two-inch by six-inch stainless steel liners. A 140-pound auto-hammer dropped 30 inches was used to drive the sampler. Each liner retained as an environmental sample was sealed on both ends with Teflon sheets and plastic end caps, labeled, and stored on ice pending transport to the analytical laboratory under chain-of-custody protocol.

Environmental soil samples were collected from each boring at depths of five and fifteen feet below ground surface (bgs). An additional soil sample was collected from borings B-1, B-2, B-3 and B-4 at a depth immediately below the surface baserock (approximately 1.5 feet bgs). A total of four soil samples were collected near the surface, and a total of ten soil samples were collected at depth. Soil boring logs are included in Appendix F.

#### 8.2.2.1 Decontamination Procedures

Soil sampling equipment was decontaminated prior to use and between samples using a solution of Alconox detergent and water, and rinsed in a two-stage rinse including deionized water. Augers were used once and returned to the drilling contractor's yard for cleaning and decontamination.

#### 8.2.2.2 Investigation-Derived Waste

Investigation-derived waste, comprising soil cuttings and decontamination rinsates, was stored in 55-gallon DOT 17H steel drums and left on site.

#### 8.2.3. Chemical Analysis

Environmental soil samples were submitted under chain-of-custody protocol to McCampbell Analytical, Inc., of Pittsburg, California, a state-certified analytical laboratory, for the following analyses:

- Volatile organic compounds (VOCs) by EPA Method 8260B;
- Total Petroleum Hydrocarbons in the gasoline, diesel and motor oil ranges (TPH-g, TPH-d, TPH-mo respectively) by EPA Method 8015C;
- LUFT 5 Metals (Cadmium, Chromium, Lead, Nickel and Zinc) by EPA Method 6010C;
- Organochlorine Pesticides (surface samples only) by EPA Method 8081B; and
- CAM 17 (Title 22) Metals (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium and Zinc) by EPA Method 6020A.

### 8.3. RESULTS

Results of the geophysical survey are discussed in detail in the report from NorCal included in Appendix E, and are summarized below. Results of the chemical analysis for surface soil samples are summarized on Table 8-1, and for deeper soil samples on Table 8-2. Analytical reports from McCampbell Analytical, Inc. are included in Appendix G.

#### 8.3.1. Geophysical Survey

Results of the geophysical survey of the site identify four anomalies and one underground pipeline that is suspected to be a storm drain conduit. The report from Nor Cal Geophysical, Inc. (Appendix E) includes a vertical magnetic gradient (VMG) contour map showing which shows the locations of these anomalies detected with the magnetometer and the metal detector. The detected anomalies may be related to abandoned or former underground storage tanks.

#### 8.3.2. Soil Samples

A total of fourteen soil samples were submitted to the analytical laboratory for analysis: four surface samples, five samples from a depth of 5 feet bgs, and five samples from a depth of 15 feet bgs.

Kleinfelder compared the analytical results to Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB). RWQCB ESLs do not represent regulatory action levels, however they do provide a guideline from which to assess risk factors associated with the presence of contaminants in soil and groundwater.

The surface samples were analyzed for organochlorine pesticides and CAM 17 metals. Organochlorine pesticides were not detected at or above laboratory reporting limits in the four samples analyzed. Concentrations of CAM 17 metals detected in surface soil samples B-1-1.5, B-2-1.5 and B-4-1.5 were below their respective ESLs. Arsenic was detected in soil sample B-3-1.5 at a concentration of 5.7 mg/kg, exceeding the ESL of 5.5 mg/kg (residential and commercial/industrial). This concentration, while exceeding

the ESLs for arsenic, is within the range of naturally occurring background concentrations in the area.

Subsurface soil samples collected at depths of 5 and 15 feet bgs were analyzed for VOCs, TPH in the gasoline, diesel and motor oil ranges, and the LUFT 5 metals. VOCs and TPH-gasoline were not detected at or above laboratory reporting limits in the ten samples analyzed. TPH-diesel was detected at concentrations below the ESLs in samples B-1-5, B-2-15, B-3-5, B-4-5 and B-5-15. The highest TPH-diesel concentration detected was 2.2 mg/kg. TPH-motor oil was detected at concentrations below the ESLs in samples B-1-5, B-3-5, B-4-5, B-5-5 and B-5-15. The highest TPH-motor oil concentration detected was 25 mg/kg. Cadmium was not detected at or above laboratory reporting limits in the ten samples analyzed. Lead nickel and zinc were detected at concentrations below their respective ESLs in the ten samples analyzed. Chromium was detected in the ten samples analyzed. Chromium concentrations exceeded the ESLs for chromium (58 mg/kg for residential and commercial/industrial land use) in the following samples: B-1-5 (77 mg/kg), B-2-15 (66 mg/kg), B-4-5 (62 mg/kg), B-5-5 (62 mg/kg) and B-5-15 (67 mg/kg). These chromium concentrations, while exceeding the ESLs for chromium, are within the range of naturally occurring background concentrations in the area.



## **9 EXPLORATORY EXCAVATION**

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Kleinfelder excavated twelve test pits at the site on July 31, 2007 in order to identify the sources of magnetic and metal detector anomalies detected during the geophysical survey performed on June 11, 2007, to locate possible remnants of a the fuel system used by the former service station located on site, and to assess possible past releases on the site related to the operations of that service station.

### **9.1. FIELD PROCEDURES**

Twelve test pits were excavated at the site on July 31, 2007 using a backhoe, provided and operated by Kleinfelder's subcontractor, Controlled Environmental Services (CES) of Oakley, California. The work was performed under the direction of Kleinfelder Staff Geologist John Williams. The initial locations for the exploratory excavations – labeled P-1, P-2, P-3, P-4, P-5, P-6, P-9 and P-10 on a sketch map in Appendix H – were selected based on geophysical anomalies detected during the geophysical survey of June 11, 2007, and the likely locations of potentially abandoned fuel system components associated with the former Standard Oil service station on the site. Additional excavation was performed to follow the trace of piping uncovered in the initial pothole locations – labeled P-7, P-8, P-11 and P-12 on the sketch map in Appendix H.

#### **9.1.1. Sample Collection**

Kleinfelder collected three soil samples from three locations along the path of suspected product piping (described in Section 9.2 below). Soil samples were collected using a slide hammer and core barrel sampler. The soil samples were contained in two- by six-inch stainless steel tubes, sealed with Teflon squares and plastic end caps, and placed on ice pending transport to an analytical laboratory under chain-of-custody protocol.

### **9.2. FINDINGS**

Exploratory excavations at the locations of geophysical anomalies revealed the following: concrete blocks approximately one foot thick and dimensions varying from

one to two feet square were found at 6 inches depth in three locations – P-2, P-4 and P-6. Broken asphalt chunks were found buried at a depth of 2.5 feet in pothole P-1. Excavations at locations P-3, P-5 and P-6 revealed two sections of four-inch cast iron pipe. The pipes were filled with soil and debris and are likely related to an abandoned sewer system. Excavations P-7 and P-8 follow the traces of these pipes in the immediate vicinity. These excavations also revealed a 30-inch outside diameter concrete pipe at a depth of about 2.5 feet below ground surface – the suspected storm drain line detected in the geophysical survey.

Two additional potholes were excavated in the eastern portions of the site to attempt to locate abandoned fuel system components related to the former service station on the site.

Pothole P-9 revealed a cluster of three parallel 2-inch steel pipes at a depth of 1.5 feet trending approximately north-south with 90-degree turns toward the east at their southern ends. These pipes end with another 90-degree turn to vertical. The locations of these pipelines are noted on the sketch map in Appendix H. The vertical termini of these pipes and their position beneath the former canopy structure indicate that this was the likely location of the dispenser island of the former service station. Soil sample SR-3 was collected in this area.

Pothole P-10 was excavated to a depth of approximately 10 feet. This location was beyond the northern end of the pipes revealed in P-9. Stained soil, odors and other signs of petroleum contamination were not observed in P-10.

P-11 was excavated at the suspected northern end of the steel pipe cluster and revealed a 90-degree turn toward the west. Soil sample SR-2 was collected at that location. P-12 was excavated to locate the ends of the suspected product pipelines and the possible location of the former tank pit. Soil sample SR-1 was collected in this location.

The suspected product lines found in excavation P-9, P-11 and P-12 were abandoned in place and left open ended. No abandoned underground storage tanks were found. Stained soil, odors and other signs of petroleum contamination were not observed in the exploratory excavations.

### 9.2.1. Soil Sampling

Three soil samples were collected along the path of the suspected product piping. These soil samples were submitted to McCampbell Analytical, Inc. of Pittsburg, California, a state-certified analytical laboratory, for the following analyses:

- Total Petroleum Hydrocarbons (TPH) in the gasoline, diesel and motor oil ranges by EPA Method 8015Cm;
- Volatile Organic Compounds (VOCs) by EPA Method 8260B; and
- LUFT 5 metals (cadmium, chromium, lead, nickel and zinc) by EPA Method 6010C.

The results of the chemical analyses for the test pit soil samples are summarized in Table 9-1. The analytical laboratory reports for these samples are included in Appendix G. No significant concentrations were detected. No VOCs were detected with the exception of benzene and toluene in sample SR-3 at concentrations of 0.013 mg/kg and 0.015 mg/kg, respectively. TPHg was not detected in the samples with the exception of sample SR-3 with a concentration of 1.2 mg/kg. TPHd and TPHmo were not detected with the exception of sample SR-2 with concentrations of 1.4 mg/kg and 14 mg/kg, respectively. The VOC and TPH concentrations detected were below their respective ESLs. LUFT 5 metals were detected at concentrations below their respective ESLs, with the exception of zinc in sample SR-3, which had a concentration of 1000 mg/kg, however, this level is within the range of naturally occurring background concentrations.

## 10 PRODUCT LINE REMOVAL

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Controlled Environmental Systems (CES), Kleinfelder's subcontractor, returned to the site under Kleinfelder's supervision on September 17, 2007, to excavate and remove the suspected product pipelines using a backhoe. The pipelines were broken in two locations during excavation resulting in relatively minor releases of product (one approximately 10 gallons, the other approximately 1 to 2 gallons). These areas were over-excavated, and contaminated soil was stored in six 55-gallon DOT 17H drums on site pending disposal. The depth of the excavation in the areas of the releases was approximately 4 feet below grade, and two feet below grade in the remainder of the trench. Product contained within the product pipelines (approximately 20 gallons) was collected in a 55-gallon DOT 17H drum and held on site pending disposal. Trenches were backfilled with trench spoils.

### 10.1. Soil Sampling

After excavation and removal of the product pipelines was completed, Kleinfelder collected soil samples from the bottom of the trench at intervals of 20 linear feet. A total of 7 discrete soil samples (designated FS-1 through FS-7) were collected using a slide hammer soil sampler. Sample FS-7, collected from a depth of 12 feet, was collected from the bucket of the backhoe at the assumed location of the former UST(s). Sample FS-2 was collected at the location of the approximately 10 gallon release and Sample FS-5 was collected at the location of the approximately 1 to 2 gallon release.

Additionally, six soil samples were collected from the drums of impacted soil for waste profiling purposes. The analytical laboratory combined these soil samples to form one six-point composite sample for analysis.

Soil samples were contained in six-inch by two-inch stainless steel liners, and sealed with Teflon sheets and plastic end caps. Their sample designation and sample time were recorded on a chain-of-custody record and the samples stored on ice pending delivery to the analytical laboratory. Locations of soil sample collected from the product pipeline trench are noted on Plate 5.

## 10.2. Chemical Analysis

The soil samples collected were transferred to McCampbell Analytical, Inc. of Pittsburg, California, a state-certified chemical testing laboratory, under chain-of-custody protocol, and were analyzed for the following parameters:

- TPH as gasoline (TPH-g), diesel (TPH-d) and motor oil (TPH-mo) by EPA Method 8015C;
- Benzene, toluene, ethylbenzene and total xylenes (BTEX) by EPA Method 8260B; and
- LUFT 5 metals (cadmium, chromium, lead, nickel and zinc) by EPA Method 6020A.

Composite soil samples were analyzed for TPH-g, BTEX and total Lead by the above-listed test methods.

## 10.3. Results

The results of chemical analyses performed on discrete soil samples collected on September 17, 2007, are summarized on Table 10-1. Analytical reports from McCampbell Analytical are included in Appendix G. BTEX, petroleum hydrocarbons and the LUFT 5 metals were not detected at or above their respective applicable ESLs in soil samples FS-1, FS-3, FS-6 and FS-7. Benzene was detected in sample FS-5 at a concentration of 0.046 mg/kg, exceeding its ESL of 0.044 mg/kg. Toluene, ethylbenzene and total xylenes were detected at 11, 30 and 38 mg/kg respectively in sample FS-2, exceeding their respective ESLs (2.9, 3.3 and 2.3 mg/kg respectively). TPH-g was detected at 360 mg/kg and TPH-d was detected at 120 mg/kg in sample FS-2. The ESLs for TPH-g and TPH-d are 100 mg/kg. FS-2 and FS-5 were collected at the locations of the two relatively minor product releases that occurred during removal of the product lines.

## 11 EVALUATION

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Kleinfelder performed this ESA of the subject Site in conformance with the scope and limitations of ASTM Practice E1527-05. The following sections describe Kleinfelder's findings and provide general background information about the Site. Findings include recognized environmental conditions, historically recognized environmental conditions, and de minimus quantities, as applicable to the subject Site. Business environmental risk issues are discussed in Section 9.3, Deviations. In summary, Kleinfelder's assessment revealed the following information about the subject Site:

### 11.1. BACKGROUND

The subject site is approximately 1/2 acre in size and is a gravel parking area. It is Kleinfelder's understanding that the subject site is the proposed location for an assisted living facility.

According to the Seismic Hazard Zone Report for the San Jose West 7.5 Minute Quadrangle, Santa Clara County 2002, it appears that depth to groundwater is approximately 40-50 feet below ground surface. The estimated flow direction is to the northeast.

The Soil Survey describes the soil at the Site as silty clay loam. Depth to hardpan is greater than 75 inches below ground surface.

### 11.2. FINDINGS AND OPINIONS

Kleinfelder contracted with a commercial database service, Environmental Data Resources (EDR), to review the Federal, State, and local regulatory agency lists for references to the Site and listings within the appropriate ASTM minimum search distance to the Site. In addition, regulatory agencies were contacted to provide additional information about the subject Site and surrounding area including the local water district, county Environmental Management Department, and several state agencies.

The subject site was not listed on regulatory agency databases researched by EDR.

Off site, there were 15 facilities listed within the ASTM search distance, which were listed on one or more databases. Out of the 15 listed within the ASTM search distance only three were within 1,000 feet of the subject site. Each of the three listed within 1,000 was listed as case closed, and are not expected to adversely affect the subject site.

The history of the Site was reviewed to identify obvious uses of the Site from the present to first developed use, or back to 1940, whichever is earlier, from readily available resources. Available sources date to 1939 and include aerial photographs, Polk and Haines Criss Cross Directories, and historical topographic maps. Historical resources only provide information on indications of land use and no conclusions can be drawn from them alone. However, Kleinfelder's review of available historical resources did not reveal obvious signs of dumping, spilling, leaking, storage or disposal of hazardous materials or wastes on site, with the exception of a Service station noted in the file review. The subject site has been depicted as undeveloped since at least 1965. There was a Chevron service station on site that was revealed during Kleinfelder's research. There was no evidence of service stations or dry cleaning businesses revealed immediately adjacent to the site during Kleinfelder's research.

Kleinfelder conducted a site visit on May 17, 2007. There were no recognized environmental conditions observed during the site visit. Three areas slight stains on gravel were observed, and one area of discolored soil in a slight depression was observed on the site. The stained gravel and discoloration in the depression appear to be de minimus, according to the ASTM Standard.

### **11.3. DEVIATIONS AND ADDITIONAL SERVICES**

An evaluation of business environmental risk associated with the parcel(s) was not included in Kleinfelder's scope of work. The ESA does not incorporate non-scope considerations, such as asbestos-containing materials testing, radon, lead-based paint testing, lead in drinking water testing, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines.



#### 11.4. CONCLUSIONS AND RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment in conformance with the Scope of Work required by ASTM 1527-05 and our Proposal (PLE7P121) dated May 1, 2007, for the property located at 2517 South Bascom Avenue San Jose, in Santa Clara County. Any exceptions to, or deviations from, this practice are described in Section 9.3 of this report. This assessment has revealed no evidence of recognized environmental conditions associated with the subject Site except for the following:

- Due to the historical agricultural use of the Site, it is possible that environmentally persistent pesticides were applied to the site.
- Three slight gravel stains were noted in the vicinity of the northern border of the subject site, and some discoloration was noted in a slight depression. The stains and discoloration appears de minimus according to the ASTM standard. If the client desires a greater level of inquiry, additional shallow soil sampling can be conducted.
- According to files reviewed at the San Jose Fire Department and the title report, a Chevron Service station, including three underground storage tanks, was located onsite. The tanks were reportedly removed in 1977, however no evidence of documentation of the size of the tanks, product used, or confirmation sampling was found.

We have performed a Limited Phase II Environmental Site Assessment in general accordance with our Proposal dated May 1, 2007 for the subject site. Four surface soil samples were collected and analyzed for organochlorine pesticides and CAM 17 metals. Organochlorine pesticides were either not detected at or above laboratory reporting limits and CAM 17 metals were not detected at or above reporting limits, detected at concentrations below their respective ESLs and/or detected at concentrations within the range of naturally occurring background concentrations expected for the area. Kleinfelder recommends no further action at the site with respect to organochlorine pesticides and metals at or near the surface.



Five soil samples were collected at a depth of 5 feet bgs and five soil samples were collected at a depth of 15 feet bgs. These soil samples were analyzed for VOCs, TPH in the gasoline, diesel and motor oil ranges, and the LUFT 5 metals. VOCs, Cadmium and TPH-gasoline were not detected at or above laboratory reporting limits in the 10 samples analyzed. TPH-diesel was detected in 5 soil samples at concentrations below the ESLs for diesel. TPH-motor oil was detected in 5 soil samples at concentrations below the ESLs for motor oil. TPH-diesel and motor oil were not detected at or above laboratory reporting limits in the remaining samples. Lead, nickel and zinc were detected at concentrations below their respective ESLs in the ten soil samples analyzed. Chromium was detected in five soil samples at concentrations below the ESLs for Chromium. Chromium was detected in five soil samples at concentrations exceeding the ESLs but within the range of naturally occurring background concentrations expected for the area. These results indicate that petroleum contamination related to the former Chevron station on the site is not significant.

Exploratory excavations performed at the site on July 31, 2007, revealed the remnants of a fuel system associated with the former service station on site. Excavations revealed a cluster of three 2-inch steel pipes that are most likely abandoned product lines. The vertical termini in the area of the canopy of the former service station and the 5-foot spacing of the termini suggest the location of the former dispenser island. The other end of the piping in the western portion of the site may indicate the location of the former tank pit. No tanks were found during the above-described excavation activities.

The product pipelines were removed on September 17, 2007. The product lines broke in two places during the removal process, resulting in relatively minor releases of product (one was approximately 10 gallons, and the other was approximately 1 to 2 gallons). Impacted soil was excavated and placed in drums. Soil sample results do not indicate significant petroleum contamination beneath the former lines, other than at those points where releases occurred during excavation. Due to the remaining concentrations of petroleum hydrocarbons and related compounds detected in the vicinity of those releases, Kleinfelder recommends additional over-excavation in the areas where the releases took place.

#### 11.4.1. Data Failure

Although Kleinfelder attempted to obtain reasonably ascertainable information regarding the site, some information was either not received or not readily available at the time of this report. Therefore, consistent with ASTM E 1527-05, the following data failure (date gaps) have been identified:

- Kleinfelder attempted but was unable to contact Mr. Phillip Maskiewicz to ascertain information regarding the purchase price for the property.

No other "non-scope" considerations, such as asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality and high voltage power lines were considered for this report.



## 12 REFERENCES

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- 1 Environmental Data Resources (EDR), 2007, The EDR Radius Map with GeoCheck®, 2517 South Bascom Avenue Inquiry Number 1921905.2s, May 8, 2007.
- 2 Environmental Data Resources (EDR), 2007, The EDR Environmental LienSearch Report™ Report. 2517 South Bascom Avenue Inquiry Number 1921905.7, May 8, 2007.
- 3 Environmental Data Resources (EDR), 2007, The EDR Environmental Historical Topographic Map Report 2517 South Bascom Avenue Inquiry Number 1921905.4, May 8, 2007.
- 4 Environmental Data Resources (EDR), 2007, The EDR City Directory Abstract, 2517 South Bascom Avenue Inquiry Number 1921905.6, May 8, 2007.
- 5 Environmental Data Resources (EDR), 2007, The EDR Environmental Aerial Photographic Decade Package, 2517 South Bascom Avenue Inquiry Number 1921905.5, May 8, 2007.
- 6 Geologic Map of California, State of California Department of Conservation 1977; (Scale: 1 inch = 12 miles).
- 7 Shacklette, H.T., Boerngen, J.G., 1984. *Element concentrations in soils and other surficial materials of the conterminous United States*. United States Geological Survey Professional Paper 1270
- 8 Additional sources may be referenced separately in the report text.



# TABLES



TABLE 8-1  
SUMMARY OF SURFACE SOIL ANALYTICAL RESULTS  
SUNRISE ASSISTED LIVING, CAMPBELL CALIFORNIA  
June 13 and 14, 2007

Analyte	Sample ID Date Sampled Method	Sample Information				RWQCB - ESLs <sup>1,2</sup>	
		B-1-1.5 6/13/2007	B-2-1.5 6/13/2007	B-3-1.5 6/13/2007	B-4-1.5 6/14/2007	Residential Land Use	Industrial / Commercial Land Use
Organochlorine Pesticides (mg/kg)	8081B	ND	ND	ND	ND		
CAM 17 (Title 22) Metals (mg/kg)	6020A						
Antimony		ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	6.1	40
Arsenic		4.9	4.1	5.7	4.6	5.5	5.5
Barium		120	82	150	94	750	1,500
Beryllium		ND < 0.5	ND < 0.5	ND < 0.5	0.54	4.0	8.0
Cadmium		ND < 0.25	ND < 0.25	ND < 0.25	ND < 0.25	1.7	7.4
Chromium		41	40	45	53	58	58
Cobalt		9.1	12	11	9.3	10	10
Copper		22	19	26	21	230	230
Lead		5.9	4.6	7.3	5.5	150	750
Mercury		0.051	ND < 0.05	0.055	ND < 0.05	3.7	10
Molybdenum		0.79	0.71	1.1	0.78	40	40
Nickel		52	95	60	64	150	150
Selenium		ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	10	10
Silver		ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	20	40
Thallium		ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5	1.0	13
Vanadium		40	36	43	41	110	200
Zinc		52	43	59	49	600	600

Samples were collected June 13 and 14, 2007

Samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a state-certified analytical laboratory

All laboratory data met EPA and laboratory specifications for quality assurance and quality control.

Notes:

<sup>1</sup> California Regional Water Quality Control Board, San Francisco Bay Region Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables, Shallow Soils.

<sup>2</sup> ESLs are for shallow soils (<3 m bgs) where groundwater is a current or potential source of drinking water.

Acronyms/Abbreviations:

mg/kg - milligrams per kilogram  
ESLs - Environmental Screening Levels  
ND - Not detected at or above laboratory reporting limit  
Bold - indicates detections exceeding the ESL.





**TABLE 8-2**  
**SUMMARY OF SUBSURFACE SOIL ANALYTICAL RESULTS**  
**SUNRISE ASSISTED LIVING, CAMPBELL CALIFORNIA**  
**June 13 and 14, 2007**

Sample Information														RWQCB - ESLs <sup>1,2</sup>	
Analyte	Sample ID	B-1-5 6/13/2007	B-1-15 6/13/2007	B-2-5 6/13/2007	B-2-15 6/13/2007	B-3-5 6/13/2007	B-3-15 6/13/2007	B-4-5 6/14/2007	B-4-15 6/14/2007	B-5-5 6/14/2007	B-5-15 6/14/2007	Residential Land Use	Industrial / Commercial Land Use		
Volatile Organic Compounds(mg/kg)	Method														
Petroleum Hydrocarbons (mg/kg)	8260B	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
	8015C	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	ND < 1.0	100	100		
TPH - Gasoline		2.1	ND < 1.0	ND < 1.0	1.1	2.2	ND < 1.0	1.2	ND < 1.0	ND < 1.0	1.3	100	100		
TPH - Diesel		19	ND < 5.0	ND < 5.0	ND < 5.0	25	ND < 5.0	13	ND < 5.0	7.5	12	500	1,000		
TPH - Motor Oil															
LUFT 5 Metals (mg/kg)	6020A/6010C	ND <1.5	ND < 1.5	ND <1.5	ND <1.5	ND <1.5	ND <1.5	ND <1.5	ND <1.5	ND <1.5	ND <1.5	1.7	7.4		
Cadmium		77	44	53	66	49	53	62	42	62	67	58	58		
Chromium		9.5	5.4	9.2	9.3	9.5	8.0	11	8.2	11	9.6	150	750		
Lead		130	44	75	67	60	58	76	40	76	70	150	150		
Nickel		78	54	84	100	71	72	80	56	81	73	600	600		
Zinc															

Samples were collected June 13 and 14, 2007  
 Samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a state-certified analytical laboratory.  
 All laboratory data met EPA and laboratory specifications for quality assurance and quality control.

Notes:  
<sup>1</sup> California Regional Water Quality Control Board.

<sup>2</sup> ESLs are for shallow soils (≤3 m bgs) where groundwater is a current or potential source of drinking water.

Acronyms/Abbreviations:  
 mg/kg - milligrams per kilogram  
 ESLs - Environmental Screening Levels  
 RWQCB - Regional Water Quality Control Board (San Francisco Bay Region)  
 TPH - Total Petroleum Hydrocarbons  
 ND - Not detected at or above laboratory reporting limit  
 Bold - indicates detections exceeding the ESL.



TABLE 9-1  
SUMMARY OF TEST PIT SOIL ANALYTICAL RESULTS  
SUNRISE ASSISTED LIVING, CAMPBELL CALIFORNIA  
July 31, 2007

Analyte	Sample Information				RWQCB - ESLs <sup>1,2</sup>	
	Sample ID	SR-1	SR-2	SR-3	Residential Land Use	Industrial / Commercial Land Use
	Sample Date	7/31/2007	7/31/2007	7/31/2007		
	Method					
	8260B					
<b>Volatile Organic Compounds (mg/kg)</b>						
Benzene		ND < 0.005	ND < 0.005	0.013	0.044	0.044
Toluene		ND < 0.005	ND < 0.005	0.015	2.9	2.9
Ethylbenzene		ND < 0.005	ND < 0.005	ND < 0.005	3.3	3.3
Total Xylenes		ND < 0.005	ND < 0.005	ND < 0.005	2.3	2.3
<b>Petroleum Hydrocarbons (mg/kg)</b>						
TPH - Gasoline	8015C	ND < 1.0	ND < 1.0	1.2	100	100
TPH - Diesel		ND < 1.0	1.4	ND < 1.0	100	100
TPH - Motor Oil		ND < 5.0	14	ND < 5.0	500	1,000
<b>LUFT 5 Metals (mg/kg)</b>	6020A/6010C					
Cadmium		ND < 1.5	ND < 1.5	ND < 1.5	1.7	7.4
Chromium		57	53	53	58	58
Lead		5.4	9.0	21	150	750
Nickel		65	63	68	150	150
Zinc		90	80	1000	600	600

Samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a state-certified analytical laboratory.  
Laboratory data met EPA and laboratory specifications for quality assurance and quality control.

Notes:

<sup>1</sup> California Regional Water Quality Control Board,  
San Francisco Bay Region. *Screening For*

<sup>2</sup> ESLs are for shallow soils (≤ 3 m bgs) where groundwater is a current or potential source of drinking water

Acronyms/Abbreviations:

mg/kg - milligrams per kilogram  
ESLs - Environmental Screening Levels  
RWQCB - Regional Water Quality Control Board (San Francisco Bay Region)  
TPH - Total Petroleum Hydrocarbons  
ND - Not detected in or above laboratory reporting limit  
NE - Not established

Bold - indicates detections exceeding the ESL.



TABLE 10-1  
SUMMARY OF PRODUCT PIPEWAY SOIL ANALYTICAL RESULTS  
SUNRISE ASSISTED LIVING, CAMPBELL CALIFORNIA  
September 17, 2007

Analyte	Sample Information							RWQCB - ESL <sup>1,2</sup>	
	Sample ID	FS-1	FS-2	FS-3	FS-4	FS-5	FS-6	FS-7	Residential / Commercial Land Use
	Sample Date	9/17/2007	9/17/2007	9/17/2007	9/17/2007	9/17/2007	9/17/2007	9/17/2007	
	Sample Depth (feet bgs)	3	3	3	3	3	6	12	
Method									
BTX (mg/kg)	8260B								
Benzene		0.0076	ND<2.0	0.0087	0.011	0.046	ND<0.005	ND<0.005	0.044
Toluene		0.0053	11	ND<0.005	0.033	0.2	ND<0.005	ND<0.005	2.9
Ethylbenzene		0.025	30	0.024	0.12	0.4	ND<0.005	0.015	3.3
Total Xylenes		0.013	38	0.0084	0.075	0.83	ND<0.005	0.0094	2.3
Petroleum Hydrocarbons (mg/kg)	8015C								
TPH - Gasoline		ND<1.0	360	ND<1.0	1.9	20	ND<1.0	ND<1.0	100
TPH - Diesel		ND<1.0	120	ND<1.0	ND<1.0	11	ND<1.0	ND<1.0	100
TPH - Motor Oil		ND<5.0	6	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	500
LUFT 5 Metals (mg/kg)	6020A/6010C								
Cadmium		ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<1.5	1.7
Chromium		52	35	45	43	53	55	57	58
Lead		9	9.1	5.9	5.2	7.4	8.9	8.8	150
Nickel		65	47	55	72	62	75	69	150
Zinc		560	75	57	50	260	66	68	600

Samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a state-certified analytical laboratory. All laboratory data met EPA and laboratory specifications for quality assurance and quality control.

Notes:

<sup>1</sup> California Regional Water Quality Control Board, San Francisco Bay Region. Screening For Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Look-up Tables, Shallow Soils, Groundwater is Current or Potential Source of Drinking Water, Interim Final, February 2005.

<sup>2</sup> ESLs are for shallow soils (<3 m bgs) where groundwater is a current or potential source of drinking water.

Acronyms/Abbreviations:

mg/kg - milligrams per kilogram  
ESLs - Environmental Screening Levels  
RWQCB - Regional Water Quality Control Board (San Francisco Bay Region)  
TPH - Total Petroleum Hydrocarbons  
BGS - below ground surface  
ND - Not detected at or above laboratory reporting limit  
Bold - indicates detections exceeding the ESL.

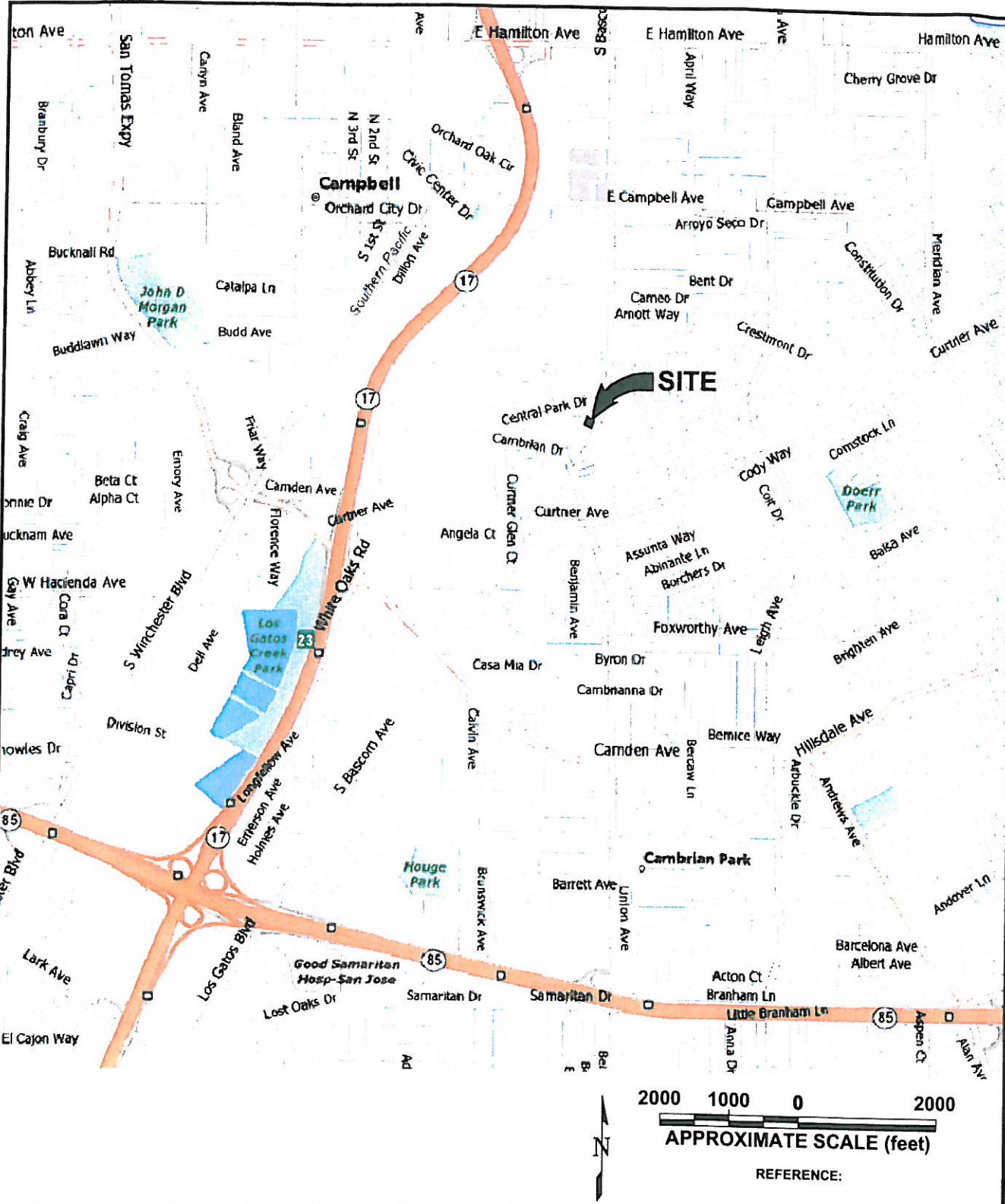


# PLATES





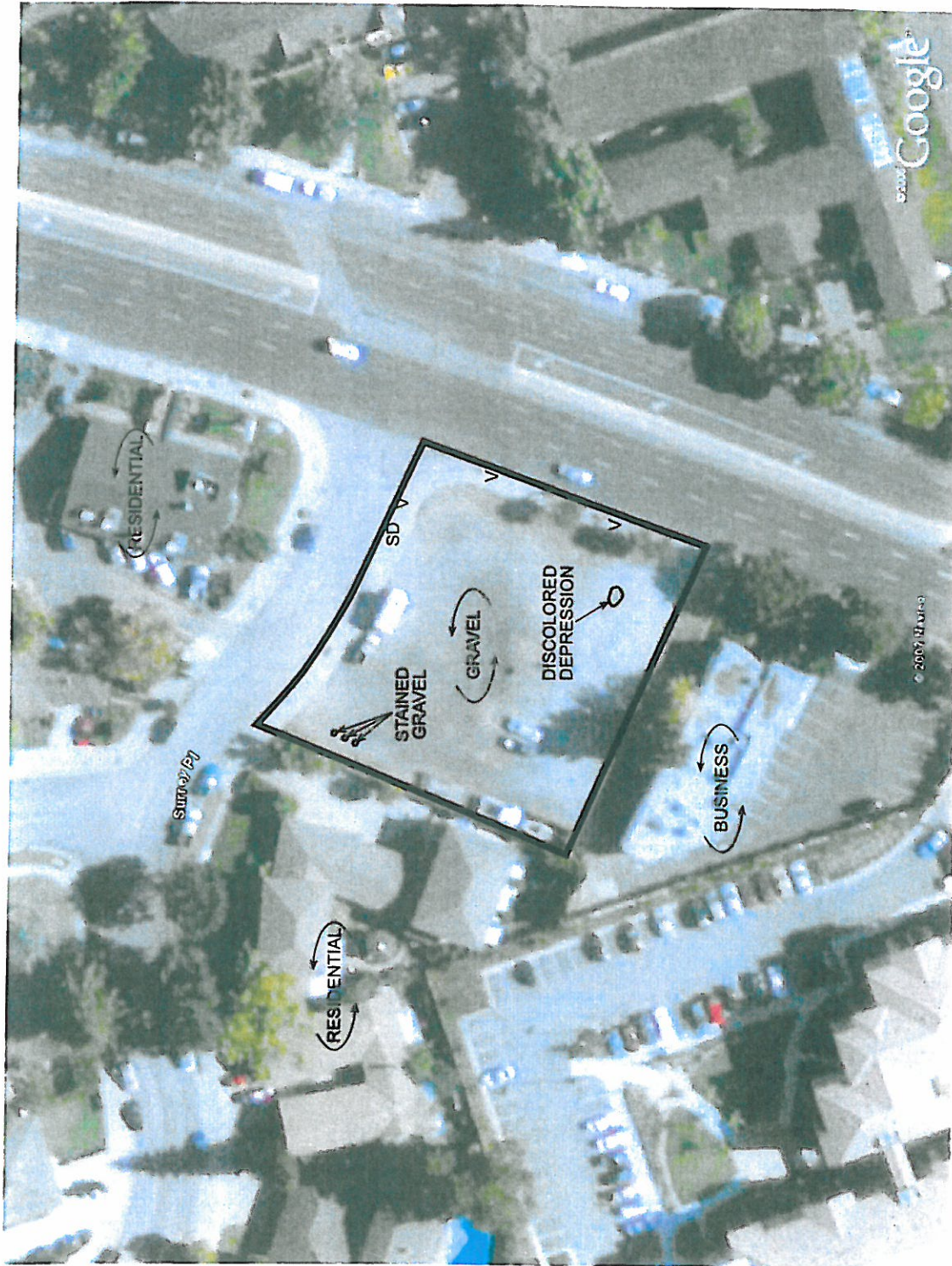
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<b>KLEINFELDER</b>  7133 Koll Center Parkway, Suite 100 Pleasanton, CA 94566 PH. 925-484-1700 FAX. 925-484-5838 www.kleinfelder.com		<b>SITE VICINITY MAP</b>  SUNRISE ASSISTED LIVING 2517 S. BASCOM AVE CAMPBELL, CALIFORNIA		DRAWN BY: LGS
				REVISED BY:
DRAWN: SEP 2007    APPROVED BY: _____		PROJECT NO. 83627-PII    FILE NAME: Phase2.dwg		CHECKED BY: JW
				PLATE  <div style="font-size: 2em; font-weight: bold; text-align: center;">1</div>







APPROXIMATE SCALE IN FEET:  
1" = 75'



# LEGEND

- V UNDERGROUND VAULT
- SD STORM DRAIN

**KLEINFELDER**

**SITE MAP**  
**SUN RISE ASSISTED LIVING**  
**2517 S. BASCOM AVENUE**  
**CAMPBELL, CALIFORNIA**

DATE PRODUCED: 5/23/2007 DATE REVISED:

PROJ. NO.: 83627.ESP FILENAME: ST07D238.FH11

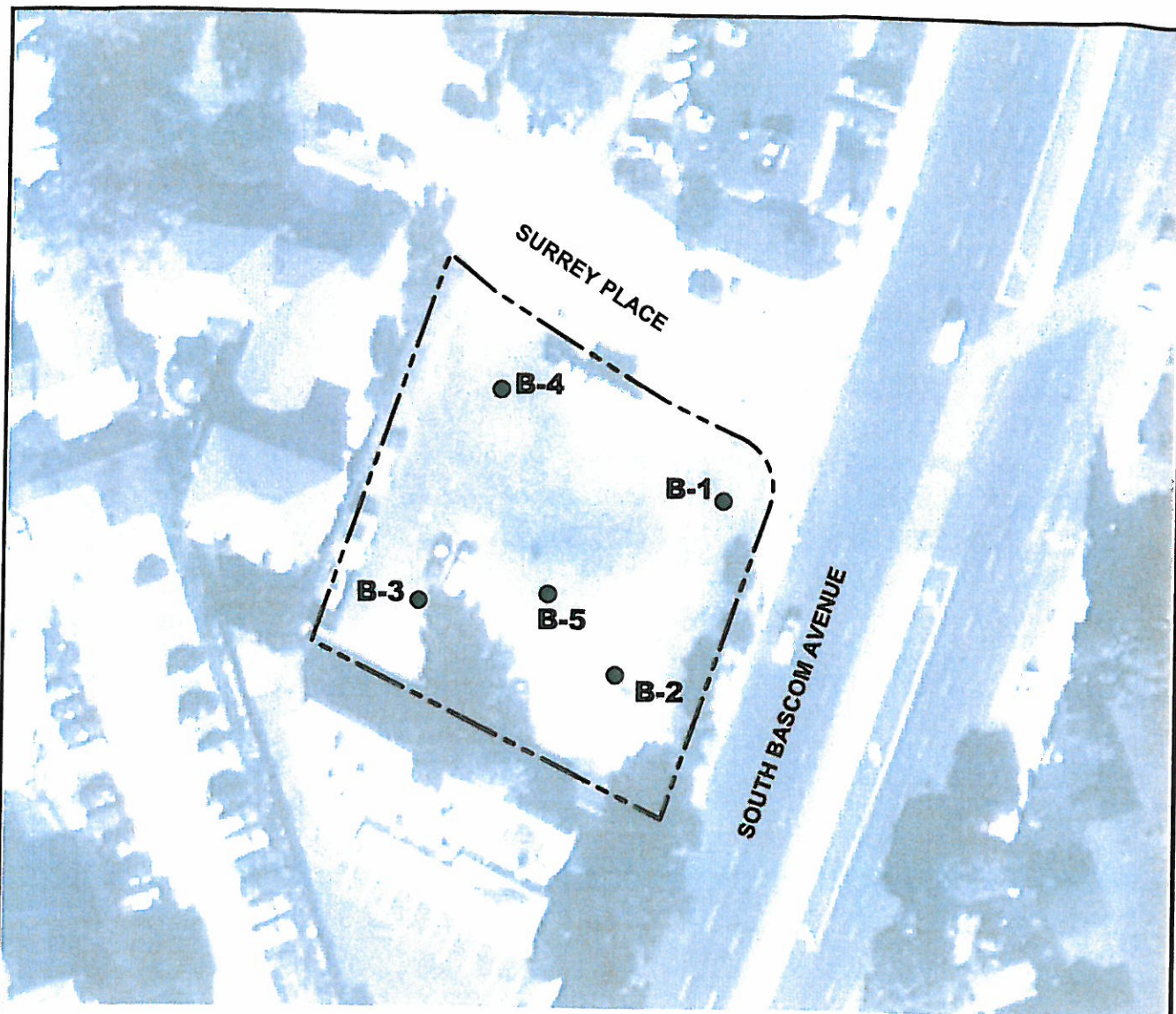
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2





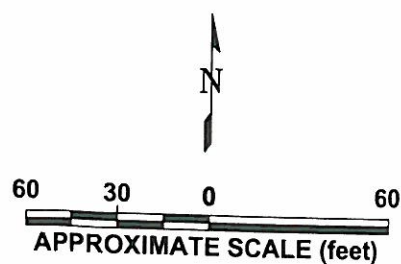
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#### LEGEND

- PROPERTY LINE
- SOIL BORING  
(by Kleinfelder, June 2007)

NOTE: Locations are approximate.



REFERENCE:  
Google, 2007

## KLEINFELDER

7133 Koll Center Parkway, Suite 100  
Pleasanton, CA 94566  
PH. 925-484-1700 FAX. 925-484-5838  
www.kleinfelder.com

### SOIL BORING LOCATIONS

SUNRISE ASSISTED LIVING  
2517 S. BASCOM AVE  
CAMPBELL, CALIFORNIA

DRAWN BY: LGS

REVISED BY:

CHECKED BY: JW

PLATE

3

DRAWN: JUL 2007

APPROVED BY: \_\_\_\_\_

PROJECT NO. 83627-PII FILE NAME: Phase2.dwg





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 CAD FILE: L:\2007\07Projects\83627\GRAPHICS\PIII LAYOUT: PHOTOS



**PHOTO 1.** Slight discoloration in a depression on the subject site.



**PHOTO 2.** Looking north across subject site.



**PHOTO 3.** Gravel stains located on the site.



**PHOTO 4.** Looking west across subject site.

## KLEINFELDER

7133 Koll Center Parkway, Suite 100  
 Pleasanton, CA 94566  
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## SITE PHOTOGRAPHS

SUNRISE ASSISTED LIVING  
 2517 S. BASCOM AVE  
 CAMPBELL, CALIFORNIA

DRAWN BY: LGS

REVISED BY:

CHECKED BY: JAL

PLATE

4

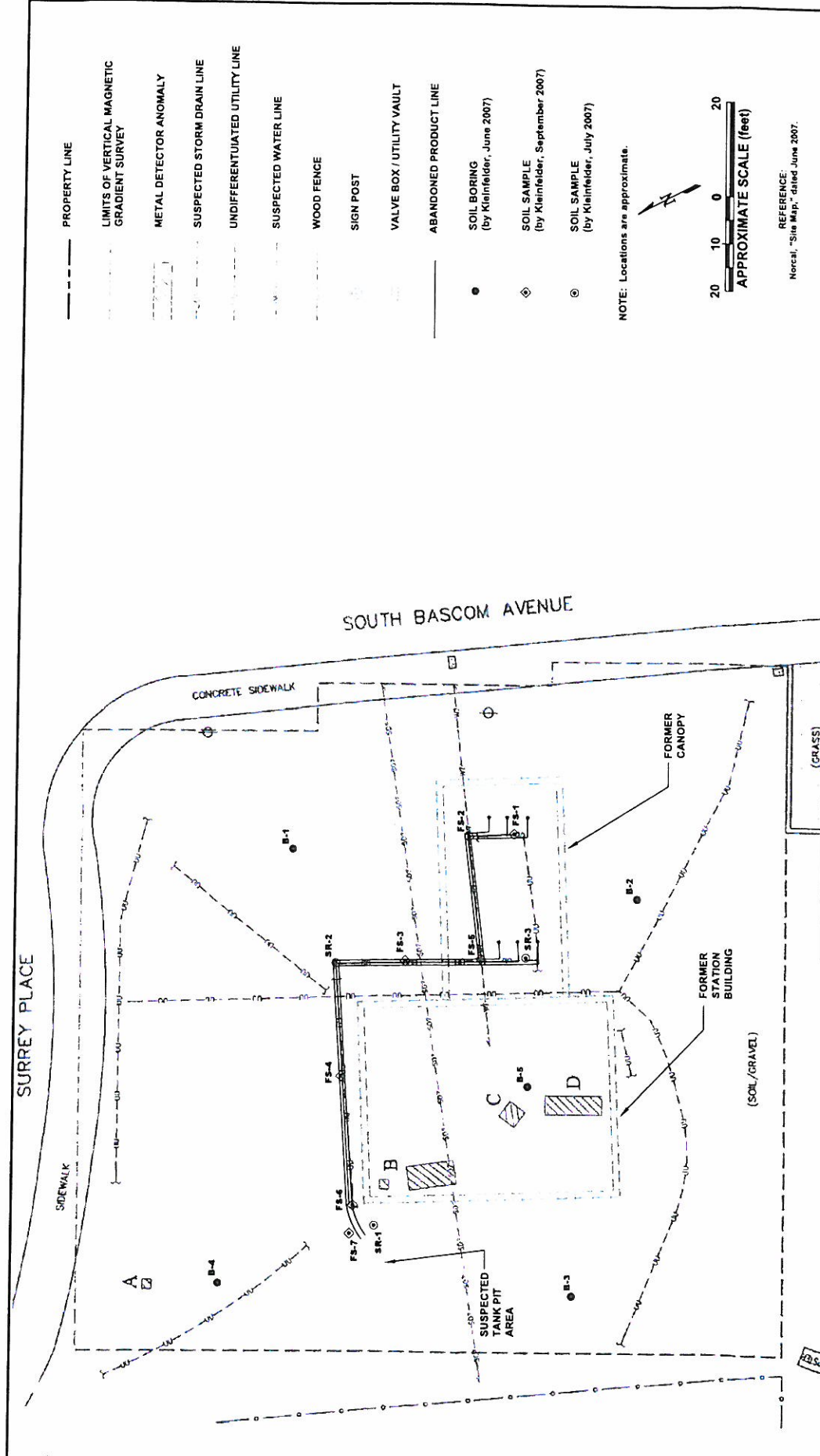
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APPROVED BY:

PROJECT NO. 83627-PII FILE NAME:Phase2.dwg







<b>SOIL BORING LOCATIONS</b>		<b>KLEINFELDER</b>		PLATE <b>5</b>
DRAWN BY: JS REVISD BY: CHECKED BY: JL DATE: OCT 2007		7133 Koll Center Parkway, Suite 100 Pleasanton, CA 94566-3101 PH. (925) 484-1700 FAX. (925) 484-5838 www.kleinfelder.com		
PROJECT NO. 83827-PII		FILE NAME: Phase2.dwg		
BUILDING		SUNRISE ASSISTED LIVING 2517 S. BASCOM AVE CAMPBELL, CALIFORNIA		

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 CAD FILE: L:\2007\Projects\83827\GGRAPHICS\PII\09-2007 LAYOUT: SITEPLAN  
 © by Kleinfelder Inc., 2007  
 PLOT: 15 Oct 2007, 12:20pm, jsala



APPENDIX B-2:

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*Addendum to  
Phase I / Limited Phase II Environmental Site Assessment*



November 30, 2007  
File No. 83627.P11

Sunrise Development, Inc.  
Attn.: Ms. Veronica Vargas  
1340 Treat Boulevard, Suite 130  
Walnut Creek, California 94597

**Subject: Addendum to Phase I / Limited Phase II Environmental Site  
Assessment  
Sunrise Assisted Living  
2517 South Bascom Avenue  
San Jose, California**

Dear Ms. Vargas:

Kleinfelder is pleased to present this Addendum to our Phase I / Limited Phase II Environmental Site Assessment (ESA) for the above-referenced property. Kleinfelder has prepared this addendum to document removal of residual concentrations of petroleum hydrocarbons in soil found following minor releases associated with the product line removal on September 17, 2007. Additional impacted soil was removed from the site on November 21, 2007, and additional confirmation samples were collected. The impacts from the minor releases have been mitigated, and Kleinfelder recommends no further action with regard to petroleum hydrocarbons at the site. Details of our November 21, 2007 field activities, chemical analyses and results are described below. We trust the Phase I / Limited Phase II ESA, dated October 29, 2007, and the information presented in this addendum meets your needs at this time.

We have addressed the concerns expressed in the third-party peer review letter and the intent of the peer review letter recommendations by indicating that:

- The Phase II ESA sampling was performed based on recognized environmental concerns (RECs) identified in the Phase I ESA;
- Additional Phase II ESA field work was performed to remove the product lines, and additional soil samples were collected to evaluate the potential cleanup costs connected with the product lines and the former tank pit;
- The Phase II ESA was performed to locate remnants of the former fuel system at the site and to assess possible past releases associated with the former fuel system;
- Groundwater was not encountered in the soil borings;

- Associated partners and lending agencies associated directly with Sunrise Development, Inc. may use the report and addendum for the same purpose as intended by Sunrise Development, Inc..

As part of our scope of work, Kleinfelder was requested to perform environmental testing below the produce lines, and to remove and dispose of the product lines. This work was performed at the request of Sunrise Development, Inc., in accordance with the recommendation in our Phase I / Limited Phase II ESA report. During removal of the product line on September 17, 2007, product was released into the soils at the site. Kleinfelder has prepared this addendum to document removal of residual concentrations of petroleum hydrocarbons and related compounds in soil found following minor releases associated with the product line removal. Analytical results for soil samples FS-2 and FS-5, collected at the time of product line removal in the locations of the releases, indicated the presence of impacted soil. A detailed description of the product line removal and the associated minor releases of product is included in Section 10 of our Phase I / Limited Phase II ESA report.

On November 21, 2007, Kleinfelder's subcontractor excavated and removed soil from the areas of the releases. Kleinfelder collected one confirmation soil sample in each of the two locations. Staining, odors and/or elevated photoionization detector readings were not noted in the soil samples or the excavations. BTEX compounds (benzene, toluene, ethylbenzene and total xylenes), methyl tertiary-butyl ether (MTBE) and total petroleum hydrocarbons (TPH) in the diesel and motor oil ranges were not detected at or above laboratory reporting limits in soil sample CS-1 (collected in the vicinity of sample FS-5). TPH in the gasoline range was detected at a concentration well below the ESL for TPH-gasoline in soil sample CS-1. BTEX compounds, MTBE and TPH in the gasoline, diesel and motor oil ranges were not detected at or above laboratory reporting limits in soil sample CS-2 (collected in the vicinity of sample FS-2).

## SCOPE OF WORK

The scope of work described in this addendum includes excavation of impacted soil in the areas where releases occurred during removal of product lines on the site; disposal of contaminated soil as non-hazardous waste; collection and chemical analysis of two confirmation soil samples; and preparation of this Addendum to Phase I / Limited Phase II ESA.

## FIELD ACTIVITIES

Prior to commencement of field activities, Kleinfelder notified Underground Service Alert (USA) of our intention to excavate into the subsurface (USA Ticket No. 0433261). On November 21, 2007, Kleinfelder's subcontractor, Controlled Environmental Services (CES) excavated in the vicinity of soil samples FS-2 and FS-5, as shown on Plate 5 of

the Phase I / Limited Phase II ESA dated October 29, 2007. Four drums of soil, totaling approximately one cubic yard, were removed during the excavation.

Confirmation sample CS-1 was collected at a depth of approximately 3 feet below ground surface (bgs) in the vicinity of sample location FS-5, collected previously. Confirmation sample CS-2 was collected at a depth of approximately 5.5 feet bgs in the vicinity of sample location FS-2, collected previously.

Soil samples and soil in the excavations were screened with a photoionization detector (PID) for the presence of volatile organic compounds (VOCs). Soil samples were collected using a slide-hammer and core barrel. The soil samples were contained in stainless steel liners sealed with Teflon sheets and plastic end caps. The soil samples were logged on a chain-of-custody record form and stored in a chilled ice-chest pending delivery to the analytical laboratory.

Excavated soils were stored in 55-gallon DOT 17H steel drums. Four drums of soil were generated during these field activities. CES removed the drums for disposal as non-hazardous waste (documentation is attached).

## CHEMICAL ANALYSIS

Soil samples were transferred under chain-of-custody protocol to McCampbell Analytical, Inc. of Pittsburg, California, a state-certified chemical testing laboratory. The confirmation soil samples were analyzed for the following parameters:

- Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX) and Methyl tertiary-Butyl Ether (MTBE) using EPA Method 8260B; and
- Total petroleum hydrocarbons (TPH) in the gasoline, diesel and motor oil ranges (TPHg, TPHd, TPHmo, respectively) using EPA Method 8015Cm.

## RESULTS

Kleinfelder collected and submitted two soil samples to McCampbell Analytical, Inc. A copy of the laboratory analytical report and chain-of-custody documentation is attached. Detected concentrations of the analytes listed above were compared to Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (RWQCB). RWQCB ESLs do not represent regulatory action levels, however they do provide a guideline from which to assess risk factors associated with the presence of contaminants in soil and groundwater. TPHg was detected at a concentration of 2.4 milligrams per kilogram (mg/kg) in soil sample CS-1. The ESL for TPHg is 83 mg/kg. TPHd, TPHmo, MTBE and BTEX were not detected at or above laboratory reporting limits in soil sample CS-1. TPHg, TPHd, TPHmo, MTBE and BTEX were not detected at or above laboratory reporting limits in soil sample CS-2.



## CONCLUSIONS AND RECOMMENDATIONS

Based on the above-described analytical results, it appears that impacted soil has been adequately removed from the areas of previously collected soil samples FS-2 and FS-5. Kleinfelder recommends no further action with regard to petroleum hydrocarbons at the site.

## LIMITATIONS

The limitations provided in our Phase I / Limited Phase II ESA, dated October 29, 2007, are applicable to the work discussed in this addendum.

## CLOSING REMARKS


We appreciate the opportunity to provide these services to you. Should you have any questions regarding this addendum report or wish to discuss the recommendations provided, please contact Jim Lehrman at (925) 484-1700, extension 204.

Respectfully submitted,

**KLEINFELDER WEST, INC.**



John L. Williams  
Staff Geologist



James A. Lehrman, RG, CHG, REA  
Environmental Group Manager

JLW/JAL/jmk

Attachments: Analytical report from McCampbell Analytical, Inc.  
Waste Disposal Documentation

CC: Mike Majchrzak, Kleinfelder  
Andy Franks, Kleinfelder





APPENDIX C:

---

*Parking Reduction Analysis Letter*



January 31, 2008

To: Martina Davis  
City Hall  
200 East Santa Clara Street, 3<sup>rd</sup> Floor  
San José, ca 95131

**Subject: File No. CP07-101, for the development at southwest corner of Bascom Avenue and Surrey Place (2517 South Bascom Avenue) in the City of San Jose.**

The purpose of this letter is to provide you with information in regards to the reduction in parking for the above mention project

In response to your letter dated January 4<sup>th</sup> 2008 in regards to Reduction in Parking you indicated that section 20.90.220(C) allows a reduction in parking for residential care/facilities use. At this time I would like to take the opportunity to provide you further information about the Sunrise Senior Living of San José project and further background relating to parking/studies and data.

Sunrise Senior Living of San José will provide a state of the art assisted living facility for the residents of San José that require assistance with activities of daily living. Sunrise Senior Living has been in business for 26 years and is the largest global provider of senior living with 440 communities serving over 52,000 seniors. Sunrise Senior Living provides 72% of these seniors with assisted living services including residents with memory impairment.

One hundred percent of the assisted living residents at Sunrise of San José community will be memory impaired. These residents will not drive or be allowed to maintain a driver's license. Sunrise has pioneered many programs dealing with Alzheimer's and dementia. By providing what Sunrise calls a Reminiscence Neighborhood with different levels of acuity and memory impairment, an important housing opportunity for this special need segment of the senior population is fulfilled. This facility will provide these services to 100% of the residents and as stated before residents cannot and will not drive.

The proposed site plan has 36 parking spaces for 69 units which equates to 0.52 spaces per unit. This ratio is consistent with Sunrise's experience and typical for all their assisted living communities.

A 1998 study of traffic and parking conducted by the American Senior Housing Association indicated that resident vehicles do not contribute measurably to parking needs. Generally, the residents do not drive (due to "physical and/or cognitive limitations") or have access to vehicles, the facilities are usually located along major street corridors with access to public transportation, and the facilities provide schedule



transportation via a company bus or van. The study concludes that assisted living facilities required 0.22 parking spaces per unit during peak usage, and that established facilities typically provide an excessive number of spaces. Please see Exhibit A and Exhibit B is a summary detail of Sunrise Assisted Living Communities in the Bay Area and their respective parking.

I have also included a study done in December of 2006 which explains that “assisted Living” complexes settings, please see Exhibit C.

There will be three staggered shifts during the day and an overnight shift. During the week, peak hours are from 10 a.m. to 1:30 p.m. During this time there will be up to 18-20 staff members in the facility which includes salaried and hourly employees. The weekend peak from 8 a.m. to 2 p.m. will have 8-10 employees.

Sunrise encourages friends and family members to visit and share time with residents on a regular basis. Based on Sunrise’s experience, 10% of the residents will receive a visitor on a daily basis. Some visitors may stop by for a few minutes, others may share a meal with their friend or family member, but the majority of visitors stop by after work or on the weekends. Sunrise anticipate 89 residents at Sunrise of San José at full occupancy. Therefore, at most 9 guests would require parking spaces and when added to the highest employee shift count, the parking needed is still below 36 parking spaces proposed for this property.

Therefore, based on the above information presented above Sunrise is requesting the approval of 36 on site parking spaces rather the 54 originally requested per the City zoning ordinance.

Thank you for your assistance with this project and consideration in this request.

Respectfully yours,

Verónica Vargas  
Development Director  
Northwest Development Team  
1340 Treat Blvd- Suite 130  
Walnut Creek, Ca 94597  
Main (925) 930-7285  
Fax (925) 930-7255  
Cell (925) 899-7106  
[veronica.vargas@sunriseseniorliving.com](mailto:veronica.vargas@sunriseseniorliving.com)  
[www.sunriseseniorliving.com](http://www.sunriseseniorliving.com)





## **EXHIBIT A**



**ASSISTED LIVING RESIDENCES:  
A STUDY OF TRAFFIC & PARKING IMPLICATIONS**

**2<sup>nd</sup> Edition**



**AMERICAN SENIORS HOUSING ASSOCIATION  
1850 M STREET, NW, SUITE 540  
WASHINGTON, DC 20036  
TELEPHONE: 202/974-2300  
FACSIMILE: 202/775-0112**



# **American Seniors Housing Association**

## **A Study of Traffic & Parking Implications**

**2<sup>nd</sup> Edition**

Created in 1991 and based in Washington, DC, ASHA represents the interests of the larger and more prominent firms in the country participating in the seniors housing industry. ASHA's members are engaged in all aspects of the development and operation of congregate, assisted living, and continuing care retirement communities, including the building, financing, and management of such properties.

For more information on the benefits of becoming a member of ASHA, as well as other research resources, contact us at:

ASHA  
1850 M Street, NW, Suite 540  
Washington, DC 20036  
Phone: 202/974-2300  
FAX: 202/775-0112



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<b>Traffic Generation Data .....</b>	<b>4</b>
Parking Generation Data .....	6
Key Findings .....	7

ASHA gratefully acknowledges the technical assistance provided by  
**Fred M. Greenberg, P.E.**, Director of Transportation,  
Barakos-Landino Design Group, Meriden, CT.

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Price: **\$50.00**

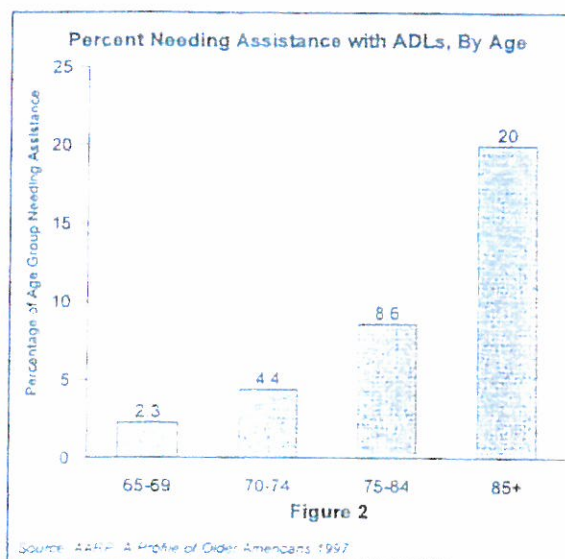
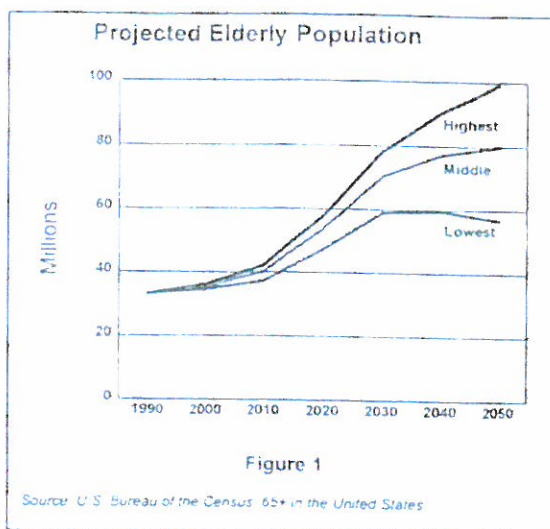




## Introduction

The elderly population (those individuals aged 65 and older) currently numbers 33.9 million, or 12.8 percent of the U.S. population. U.S. Bureau of the Census projections indicate by the year 2030, the elderly population will increase to about 70 million, or 20 percent of the U.S. population (see Figure 1).

As the graying of America accelerates, policymakers will be forced to confront the long-term care needs of the elderly. It has been well documented that as individuals age, their capacity for independent living diminishes. According to the most recent data available from the National Health Interview Survey, for example, more than half (54 percent) of the older population reported having at least one disability which limits them in carrying out activities of daily living (ADLs) (such as bathing, dressing, and eating). Likewise, the need for assistance with ADLs increases significantly with age (see Figure 2).



Although the U.S. has historically relied on nursing homes to provide long-term care, spiraling costs and rising consumer discontent have led policymakers and consumers to search for less costly and more efficient long-term care alternatives. U.S. General Accounting Office estimates that Medicaid nursing home disbursements, which serve as the primary public funding source for long-term care, cost tax payers \$24.2 billion in 1995 (the last year for which data from all funding sources is available). Medicare, a federal/state program, funded an additional \$8.4 billion for nursing home care in 1995.



One of the most promising long-term care options for seniors and their families is assisted living residences. Assisted living residences provide 24-hour care for seniors who need assistance with ADLs, but do not need the more costly continuous health care provided by nursing homes. Assisted living residences are a relatively new long-term care option that has met with strong consumer demand. The American Seniors Housing Association's most recent (1998) construction survey, for example, identified 460 assisted living residences (32,666 units) being built in the U.S., accounting for three-fourths of all seniors housing under construction.

---

Assisted living residences incorporate many appealing attributes: housing, hospitality services and health care. The hybrid nature of assisted living, however, has created some confusion about the impact of these residences on the surrounding community. Misperception abounds with regard to assisted living residences' traffic volume and parking requirements. This study, which is based on a more comprehensive sample than its predecessor (released in 1997), provides policymakers with an objective overview of assisted living traffic and parking.

---



## Study Methodology

In order to document the unique traffic and parking characteristics of assisted living residences, the American Seniors Housing Association examined and aggregated parking and traffic generation data from professionally owned and managed assisted living residences located in nine states: Colorado, Florida, Georgia, Illinois, Massachusetts, New Jersey, New York, Ohio, and Texas.

The data was then compared to traffic and parking data collected by the Institute of Transportation Engineers (ITE),<sup>1</sup> whose traffic and parking reports are considered the industry standard for a wide range of property types. ITE, however, does not provide data on assisted living traffic and parking characteristics.

The revised edition of this report is based on a more comprehensive data set than the earlier report, and is believed to more accurately reflect assisted living traffic generation during peak weekday morning and evening hours.

The assisted living residences examined contained an average of 109 units. Typically, assisted living residences dedicate at least 90 percent of their units for single-occupancy. Most of the units within the residences were similar to those in apartment communities and included kitchenettes, refrigerators, microwave ovens, sinks, and counter and storage space. Most residences also had significant common areas, including dining rooms, sitting rooms, lounges, libraries, beauty/barber shops, convenience stores, and exercise/wellness rooms. The assisted living residences operated at or near full capacity; average resident age was 84.

The average assisted living residence examined had a staff-to-resident ratio of one-to-two. Units were almost always rented. Fees for services were charged on an a la carte basis, or were included in the monthly rent. Services provided to residents varied, but typically included the following:

- 24-hour protective oversight
- Social and recreational activities
- Meals, including snacks and special diets
- Transportation
- Housekeeping
- Laundry
- On-call physician/nurse
- Exercise/wellness programs
- Emergency call systems
- Assistance with daily living activities such as bathing, dressing, and eating
- Medication administration or reminders
- First aid and medical care for minor ailments and conditions

---

<sup>1</sup>*Trip Generation*, 6<sup>th</sup> Edition, Volume 1 of 3. Institute of Transportation Engineers, 1997;  
*Parking Generation*, 2<sup>nd</sup> Edition, Institute of Transportation Engineers, 1987.



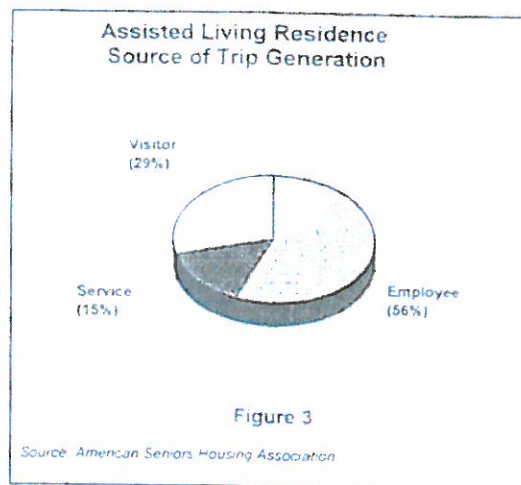
## Traffic Generation Data

Traffic generated by assisted living residences was generally limited to trips by employee, visitor, service vendor, and resident vehicles.

### Employee Vehicles

Employee vehicles contributed over half (56 percent) of all traffic volume generated by assisted living residences (see Figure 3). Employee vehicle trips during the weekday for all driving hours average 0.97 trips per unit. During the peak weekday morning hour<sup>2</sup>, employee vehicles made an average of 0.10 trips per unit. During the peak weekday evening driving hour, employee vehicles made an average of 0.09 trips per unit (see Figure 4).

The moderate impact of employee vehicles on traffic volume is largely due to the fact that most assisted living employees are full-time staff. This limits the "in and out" activities associated with part-time staff. Additionally, because assisted living residences provide 24-hour protective oversight, employees are typically scheduled to begin and end their shifts during non-peak driving hours. Employees are often scheduled in three shifts: a morning shift from 7:00 a.m. to 3:00 p.m.; an afternoon shift from 3:00 p.m. to 11:00 p.m.; and a night shift from 11:00 p.m. to 7:00 a.m.



	Peak Weekday A.M. Hour	Peak Weekday P.M. Hour	Weekday
Employee	0.10/unit	0.09/unit	0.97/unit
Visitor	0.06/unit	0.09/unit	0.50/unit
Service	0.04/unit	0.03/unit	0.26/unit
Total	0.20/unit	0.21/unit	1.73/unit

Figure 4  
Source: American Seniors Housing Association

### Visitor Vehicles

Visitor vehicles contribute over one-quarter (29 percent) of all traffic volume generated by assisted living residences. On a typical weekday, visitor vehicles made an average of 0.50 trips per unit. During the peak weekday morning driving hour, visitor vehicles made an average of 0.06 trips per unit. During the peak weekday evening driving hour, visitor vehicles made an average of 0.09 trips per unit.

The impact of visitor vehicles on traffic volume generated by assisted living residences is moderate, largely because visitor vehicles arrive and depart throughout the day on both weekdays and

<sup>2</sup>When indicated, the peak hour typically coincides with the peak hour of the adjacent street traffic.



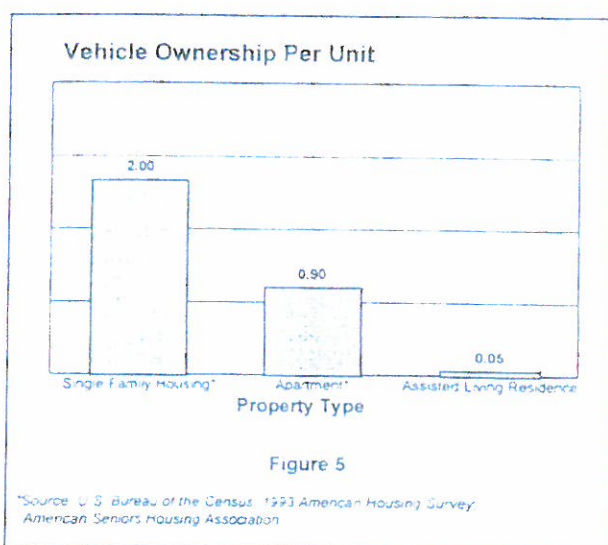


weekends, and do not fit the typical traffic (and parking) volumes generated by other housing types, which are usually highest during peak driving hours.

## Service Vehicles

Service vehicles contribute 15 percent of all traffic volume generated by an assisted living residence. On a typical weekday, service vehicles made an average of 0.26 trips per unit. During the peak weekday morning driving hour, service vehicles made an average of 0.04 trips per unit. During the peak weekday evening driving hour, service vehicles made an average of 0.03 trips per unit.

The moderate impact of service vehicles on traffic volumes generated by assisted living residences is due, in part, to the fact that most service vendors are contracted and scheduled to arrive and depart during non-peak hours. Assisted living residences typically have trash removal scheduled daily; bulk food deliveries three times a week – two deliveries per week for meat and vegetable products and one delivery per week for dairy products; medical supplies delivered by a pharmacy are typically scheduled once a week, as are florist deliveries; office supplies are typically scheduled once a month; hazardous material/sharp object pick-up is typically scheduled on demand, as are overnight shipments. U.S. mail, which is not contracted, is delivered six days per week.



Assisted living residences typically have trash removal scheduled daily; bulk food deliveries three times a week – two deliveries per week for meat and vegetable products and one delivery per week for dairy products; medical supplies delivered by a pharmacy are typically scheduled once a week, as are florist deliveries; office supplies are typically scheduled once a month; hazardous material/sharp object pick-up is typically scheduled on demand, as are overnight shipments. U.S. mail, which is not contracted, is delivered six days per week.

## Resident Vehicles

Resident vehicles did not contribute measurably to the traffic generation of the assisted living residences. This was generally due to three factors. First, most residents, due to physical and/or cognitive limitations, do not drive. The average number of resident vehicles was 0.05 per household. This is extremely low compared to other property types such as single-family homes and apartments (see Figure 5). Second, most of the assisted living residences in the sample were located in established residential areas in close proximity to public transportation services. Finally, each assisted living residence owned a van or mini-bus, which was used to provide resident transportation on a scheduled basis.

## Other Vehicles

Although there is no known data available on the number of emergency vehicles dispatched by property type, anecdotal evidence suggests that one to two situations per month at an assisted living residence may require the dispatch of an ambulance and paramedics. The total demand placed on



Traffic Generation Comparison by Property Type			
Property Type	Peak Weekday A.M. Hour	Peak Weekday P.M. Hour	Weekday
Single Family Detached*	0.75/unit	1.01/unit	9.57/unit
Low-Rise Apartment*	0.51/unit	0.62/unit	6.59/unit
High-Rise Apartment*	0.34/unit	0.40/unit	4.20/unit
Hotel*	0.52/unit	0.61/unit	8.23/unit
Retirement Community*	0.29/unit	0.34/unit	Not Available
Assisted Living Residence	0.20/unit	0.21/unit	1.73/unit

Figure 6

\*Source: Institute of Transportation Engineers, Trip Generation 4<sup>th</sup> Edition, American Seniors Housing Association

a community's emergency services by assisted living residences, however, is no higher than it would be if the residents lived in non-service-enriched housing. In fact, emergency service usage is probably lower because assisted living residences feature a wide-range of design considerations for the frail elderly that are generally not available in other residential settings.

### Traffic Generation Comparison

Total traffic volume generated by assisted living residences during a typical weekday averaged 1.73 trips per unit. Total traffic volume generated by assisted living residences during the peak weekday morning driving hour averaged 0.20 trips per unit. Total traffic volume generated during the peak weekday evening driving hour averaged 0.21 trips per unit.

Assisted living residences generate low traffic volumes compared to most other property types (see Figure 6). Low-rise apartment communities, for example, generate an average of 0.51 trips per unit during the peak weekday morning driving hour as compared to 0.20 trips per unit for assisted living residences.

Parking Requirements by Property Type	
Property Type	Peak Weekday
Low/Mid-Rise Apartment*	1.04/unit
High-Rise Apartment*	0.88/unit
Convention Hotel*	0.81/unit
Retirement Community*	0.27/unit
Assisted Living Residence	0.22/unit

Figure 7

\*Source: Institute of Transportation Engineers, Parking Generation 2<sup>nd</sup> Edition, American Seniors Housing Association

### Parking Generation Data

Parking requirements for assisted living residences are also low compared to other housing types. Based on the traffic data examined, assisted living residences require 0.22 parking spaces during peak weekday driving hours.<sup>3</sup> The assisted living residences, however, typically provide an average of 0.56 parking spaces per unit, including on-site, disabled, reserved, and ancillary parking spaces.

<sup>3</sup> Peak weekday driving hours for assisted living residences are between 7:00 a.m. and 3:00 p.m.; for most other residential property types, peak weekday driving hours extend to 6:00 p.m..



## **Key Findings**

The comparatively low traffic generation and parking requirements of assisted living residences are generally attributable to the following factors:

- ◆ Residents typically do not drive
- ◆ Employees are usually full-time staff and are typically scheduled to arrive and depart during non-peak driving hours
- ◆ Visitors typically arrive and depart at all hours during the day
- ◆ Service vendors are usually contracted and scheduled to arrive and depart during non-peak driving hours
- ◆ Assisted living residences are frequently located in close proximity to major arterial roadways serviced by public transportation
- ◆ Assisted living residences typically own a van or mini-bus, which is used to provide resident transportation on a scheduled basis



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William B. Kaplan  
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Classic Residence by Hyatt  
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Life Care Services Corporation  
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William E. Colson  
Colson & Colson/  
Holiday Retirement Corp.  
Salem, OR

Karen A. Struve  
Mercy Services for Aging  
Farmington Hills, MI

William H. Elliott  
WHE Associates, Inc.  
Beverly Hills, CA





**EXHIBIT B**



Exhibit B

**Sunrise Assisted Living Homes in SF Bay Area (surface parked)**

<u>NAME</u>	<u>UNITS</u>	<u>Parking Spaces</u>	<u>Parking Ratio</u>
<b><i>South Bay</i></b>			
Sunrise of Silver Creek (SJ)	92 units	46 (2 H)	0.50/unit
Sunrise of Sunnyvale	80 units	34 (3H, 4 ROW)	0.43/unit
<b><i>Peninsula</i></b>			
Sunrise of Belmont	78 units	36 (2 H)	0.46/unit
Sunrise of Golden Gate	100 units	27 (4 H)	0.27/unit
<b><i>East Bay</i></b>			
Sunrise of Danville	76 units	31 spaces (3H)	0.41/unit
Sunrise of Oakland Hills	85 units	38 (2H)	0.45/unit
Sunrise of Walnut Creek	75 units	36 (2 H)	0.48/unit



## **EXHIBIT C**



Exhibit C

# Shropshire|Associates LLC

Traffic Engineering  
Noise & Air Evaluations  
Eminent Domain Consulting  
Transportation Planning  
Parking Studies  
Access Permitting  
Traffic Signal Design

662 MAIN STREET, SUITE B  
LUMBERTON, NJ 08048

DAVID R SHROPSHIRE, PE, PP  
A ANDREW FERANDA, PE, CME  
JAMES A VENA, PE

PHONE  
609 714 0400  
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609 714 9944

December 6, 2006

Mr. Tim Hedges  
Sunrise Development Inc.  
220 West Huron, Suite 500  
Chicago, IL 60610

(via [tim.hedges@sunriseseniorliving.com](mailto:tim.hedges@sunriseseniorliving.com))

Re: **Parking Data**  
**Sunrise – Carmel, IN**  
SA Project No. 6220

Dear Tim:

In response to your request we are providing the following parking information for your use. It is our understanding that you are interested in a Sunrise senior care facility that will include both 78 assisted living units and 62 independent living units. We are attaching parking data from *Parking Generation (3<sup>rd</sup> Edition)* that is published by The Institute of Transportation Engineers (ITE).

ITE Land Use: 253 **Congregate Care Facility** "are independent living developments that provide centralized amenities such as dining, housekeeping, transportation and organized social/recreational activities. Limited medical services (such as nursing and dental) may or may not be provided. The resident may contract additional medical services or personal assistance." ITE has one study site for this land use and determined a parking supply ratio of 0.5 spaces per dwelling unit with a peak parking demand ratio of 0.41 vehicles per dwelling unit.

ITE Land Use 254: "**Assisted Living** complexes are residential settings that provide either routine protective oversight or assistance with activities necessary for independent living to mentally or physically limited people. These complexes commonly have separate living quarters for residents and services include dining, housekeeping, social and physical activities, medication administration and transportation. Alzheimer's and ALS care are commonly offered by these facilities, though the living quarters for these patients may be located separately from the other residents. Assisted care commonly bridges the gap between independent living and nursing homes. In some areas of the country, assisted living residences may be called personal care, residential care, or domiciliary care. Staff may be available at an assisted care facility 24 hours a day, but skilled medical care, which is limited in nature, is not required." ITE has 13 study sites for weekdays with an average peak period parking demand ratio of 0.33 vehicles per dwelling unit and an 85<sup>th</sup> percentile of 0.36 vehicles per dwelling unit. Out of 11 study sites on Saturday, ITE indicates an average peak period parking demand of 0.24 vehicles per dwelling unit and an 85<sup>th</sup> percentile of 0.30 vehicles per dwelling unit.

ITE Land Use 265: **Continuing Care Retirement Community (CCRC)** are "land uses that provide multiple elements of senior adult living. CCRCs combine aspects of independent







living with increased care, as lifestyle needs change with time. Housing options may include various combinations of senior adult (detached), senior adult (attached), congregate care, assisted living and skilled nursing care aimed at allowing the resident to live in one community as their medical needs change. The communities may also contain special services such as medical, dining, recreational and some limited, supporting retail facilities. CCRCs are usually self-contained villages." ITE has 3 study sites: the 178 unit site had a peak parking demand ratio of 0.49 per dwelling unit, the 247 unit site had a peak parking demand ratio of 0.83 parked vehicles per dwelling unit and the 42 unit site had a peak parking demand ratio of 1.0 parked vehicles per dwelling unit.

We have also included a study by Robert M. Eschbacher, P.E. presented to the 2002 ITE Annual Meeting entitled *Trip Generation and Parking Demand Characteristics of Assisted Living Facilities*. The results of his research conclude "the peak parking demand generally occurs in the mid-day period on a weekday, with a rate of 0.34 parked vehicles per room."

In addition, a parking study was performed at a 72-unit Sunrise assisted living facility in Woodbury, New Jersey. The peak parking demand occurred during a typical weekday between 2:45 PM and 3:15 PM which coincides with a staff shift change. The surveyed peak parking demand ratio was 0.49 parked vehicles per unit.

It is our opinion that a parking demand ratio of 0.5 spaces per assisted living unit and a 1.0 space per independent living unit is appropriate for this application. These ratios would provide a total parking demand of 101 parking spaces that will be more than supplied by the proposed 109 parking spaces.

We have attached the associated data sheets for your information. If you have any questions regarding this information, please call us.

Sincerely,  
Shropshire Associates LLC

David R. Shropshire, P.E., P.P.  
WO/cas  
Attachments

William Olsen  
Senior Project Consultant



APPENDIX D:

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*Environmental Noise Assessment*



**SUNRISE SENIOR LIVING OF SAN JOSE  
SURREY PLACE AND SOUTH BASCOM AVENUE  
ENVIRONMENTAL NOISE ASSESSMENT  
SAN JOSE, CALIFORNIA  
23 January 2008**

Prepared for:

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CSA Project No. 07-0655



## INTRODUCTION

This report summarizes our environmental noise assessment for the Sunrise Senior Living facility proposed at the corner of Surrey Place and South Bascom Avenue in San Jose, California. The purpose of this study is to quantify the noise environment at the site, compare noise levels with applicable City and State standards, and suggest conceptual mitigation measures as needed.

Following is a summary of our findings:

- The project shall incorporate sound-rated construction, in the form of sound-rated windows and doors, to reduce interior noise levels to DNL 45 dBA<sup>1</sup> or less.
- Where windows must be closed to meet the interior noise standard, the California Building Code requires a “ventilation or air-conditioning system to provide a habitable interior environment.”
- Exterior noise levels will range from below DNL 60 dBA in the southwestern and portion of the site to DNL 71 dBA along South Bascom Avenue. Incorporating partial-height noise barriers at elevated balconies along South Bascom Avenue would reduce outdoor noise levels to DNL 70 dBA or less for seated receivers.
- The project should include mitigation to reduce property line noise levels from mechanical equipment to the limits of the City’s General Plan and Zoning Ordinance.

## DESCRIPTION

The senior living project consists of approximately 69 residential units in a four-story building above an underground parking garage (see Figure 1, attached). Residences will be located around the perimeter of the building. Outdoor use space will consist of ground level landscaped areas in the southwestern portion of the site, a staff break area in the southern portion, and elevated balconies inset into the northern and southern building facades. Mechanical systems will include an emergency generator and garage exhaust fan, which will be located in the underground parking garage. Access to the parking garage will be from South Bascom Avenue.

The site is currently vacant, and is bordered by Surrey Place to the north, South Bascom Avenue to the east, a commercial building occupied by Western Security Funding, Inc. to the south, and residences to the west. Surrounding land uses include Di Cicco’s Italian Restaurant across Surrey Place, Shadow Creek Apartment Homes and Bascom Homes Apartments across South Bascom Avenue, and El Parador Senior Apartments on the other side of Western Security Funding, Inc. to the south.

---

<sup>1</sup> dBA--A-weighted sound pressure level (or noise level) represents the noisiness or loudness of a sound by weighting the amplitudes of various acoustical frequencies to correspond more closely with human hearing. A 10-dB (decibel) increase in noise level is perceived to be twice as loud.





## ACOUSTICAL CRITERIA

### *The City of San Jose General Plan*

The Noise Element of the San Jose General Plan 2020 contains land use compatibility guidelines for environmental noise in the community. Noise levels are characterized in terms of Day/Night Average Sound Levels (DNL<sup>2</sup>). Table 1, below, summarizes these guidelines for residential land uses.

Table 1 – Summary of Figure 16: Land Use Compatibility Guidelines for Community Noise

DNL Value in Decibels	Compatibility Level for Residential Land Use
60 dB or less	Satisfactory
60 to 70 dB	When new development requires a full EIR, an acoustical analysis should be made indicating amount of attenuation necessary to maintain an indoor level of DNL ≤45. Onsite outdoor activity limited to acoustically protected areas. Existing uses should receive remedial treatment.
Greater than 70 dB	New development permitted only if uses are entirely indoors and building design limits interior levels to ≤45 DNL. Onsite activity areas should be permitted if site planning and noise barriers can achieve levels of 60 DNL or less. Existing uses have top priority for remedial treatment.

The Noise Element defines short and long-range noise quality level goals for outdoor use areas. The City's short and long-range goals are DNL 60 and 55 dB, respectively. However, the City acknowledges that it may not be possible to attain these levels in "special noise impact areas", such as areas adjacent to major roadways, without eliminating the beneficial attributes of the exterior space.

Additionally, Policy 11 in the Noise Element states the following: "When located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses, non-residential land uses should mitigate noise generation to meet the 55 DNL guideline at the property line."

### *City of San Jose Municipal Code*

The Zoning Ordinance of the San Jose Municipal Code includes performance standards for the generation of noise at adjacent properties. In summary, noise levels from air conditioners or other mechanical equipment are limited to 55 dB at residential property lines, and 60 dB at commercial property lines.

<sup>2</sup> Day/Night Average Sound Level (DNL) — A descriptor established by the U.S. Environmental Protection Agency to describe the average day-night level with a penalty applied to noise occurring during the nighttime hours (10 pm - 7 am) to account for the increased sensitivity of people during sleeping hours.



### *California Building Code (CBC)*

The California Building Code includes acoustical requirements for interior sound levels in habitable rooms of multi-family housing<sup>3</sup>. In summary, the CBC requires that interior noise levels are no greater than DNL 45 dB due to exterior noise sources. Projects exposed to an exterior DNL greater than 60 dB require an acoustical analysis during the design phase showing that the proposed design will limit exterior noise to the prescribed allowable interior level. Additionally, if windows must be closed to meet the interior standard, "the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment."

### **NOISE ENVIRONMENT**

Environmental noise at the site is dominated by vehicle traffic on South Bascom Avenue. To quantify the existing noise environment, two long-term monitors continuously measured noise levels at the site between the 14<sup>th</sup> and 18<sup>th</sup> of January 2008. In addition to the long-term monitors, short-term measurements were conducted and compared with corresponding time periods of long-term monitors to determine how sound levels vary across the site and at different elevations. Table 2 summarizes existing noise levels at the site.

Table 2: Existing Noise Environment

Location	Date / Time	DNL
South Bascom Avenue Monitor Approximately 55' west of roadway centerline	14 to 18 January 2008	73 dBA
Surrey Place Monitor Approximately 20' north of roadway centerline	14 to 18 January 2008	66 dBA
South Bascom Avenue Spot Measurement Approximately 65' west of Bascom Avenue centerline, 6' / 16' above grade	18 Jan 08 3:15 – 3:30 PM	69 / 70 dBA
Surrey Place Spot Measurement Approximately 35' south of Surrey Place centerline, 6' above grade	18 Jan 08 3:15 – 3:30 PM	61 dBA

The City forecasts that peak hour traffic volumes along South Bascom Avenue will increase from 2,000 to 2,700 vehicles by the way 2020<sup>4</sup>. This corresponds with approximately a 1 to 2-decibel increase in traffic noise. Estimated future noise levels are shown in Figure 1, attached.

### **ANALYSIS AND RECOMMENDATIONS**

The 15 January 2008 Site Plan shows the building setback along South Bascom Avenue ranging from approximately 5 ½ to 8 feet from the property line, or approximately 65 feet west of the roadway centerline. Estimated future noise levels at the site range from

<sup>3</sup> 2007 California Building Code, California Code of Regulations, Title 24, Part 2, Volume 1 of 2, Section 1207: Sound Transmission

<sup>4</sup> Fax Transmittal from Amy Fauria with the City of San Jose Transportation Planning Division, 8 January 2008.



below DNL 60 dBA at the lower levels in the western portion of the site to DNL 71 dBA along South Bascom Avenue.

### Exterior-to-Interior Noise

To meet the indoor noise criteria of DNL 45 dB or less, it will be necessary for the exterior facades of some units to be sound-rated. Recommendations for sound-rated construction will depend on the size and type of rooms, windows, and exterior facades, and must be determined during the design phase.

To provide you with an estimate of the extent of mitigation that may be necessary, we have calculated preliminary window and door Sound Transmission Class<sup>5</sup> (STC) ratings assuming a typical room size of 12 by 14 feet, with windows or doors occupying approximately 40-percent of the exterior wall area. The exterior façade is assumed to be equivalent to 7/8-inch thick three coat stucco over wood sheathing, wood studs with insulation in stud cavities, and at least 1-layer of gypsum board on the interior. Table 3 provides an initial estimate of the range of window and door STC ratings that may be necessary.

Table 3: Preliminary Window and Door STC Ratings\*

Location	Window and Door STC Rating to Achieve DNL 45 dB Indoors
South Bascom Avenue (Eastern Façade)	STC 34
Surrey Place (Northern Façade) and Southern Building Façade	STC 28 to 31
Western Building Facade	STC 26

\*Should be confirmed or revised during the design phase based on actual unit plans and window sizes.

It is important to note that sound insulation ratings are for the complete tested assembly, and not for glazing alone. For reference, standard construction-grade dual-pane windows and sliding glass doors typically have sound insulation ratings in the range of STC 26 to 28.

The CBC requires that where residential windows must be closed to achieve an interior DNL of 45 dB or less, the design must include a “ventilation or air-conditioning system to provide a habitable interior environment.” This applies to all habitable rooms on the northern, eastern, and western facades. Ventilation systems must not compromise the sound insulation of the exterior wall assemblies. This issue should be discussed with the project mechanical engineer.

<sup>5</sup> Sound Transmission Class (STC) — A single number used to compare walls, floor/ceiling assemblies, windows and doors for their sound insulating properties with respect to speech and small household appliance noise.



### *Exterior Noise Levels*

Estimated future noise levels in the staff break area in the southern portion of the site, in the landscaped areas in the western portion of the site, and at elevated balconies in the middle of the western façade are approximately DNL 60 dB or less, consistent with the City's exterior noise goal. At third and fourth floor balconies along South Bascom Avenue, the estimated future DNL is approximately 72 dB, due to roadway traffic. Incorporating partial-height noise barriers that block the line of sight between the roadway and residents would reduce calculated noise levels to below DNL 70 dB. Effective barriers would be approximately 42-inches or taller, be solid from bottom to top with no cracks or gaps, and have a minimum surface density of 3 pounds per square foot. Details should be determined during the design phase.

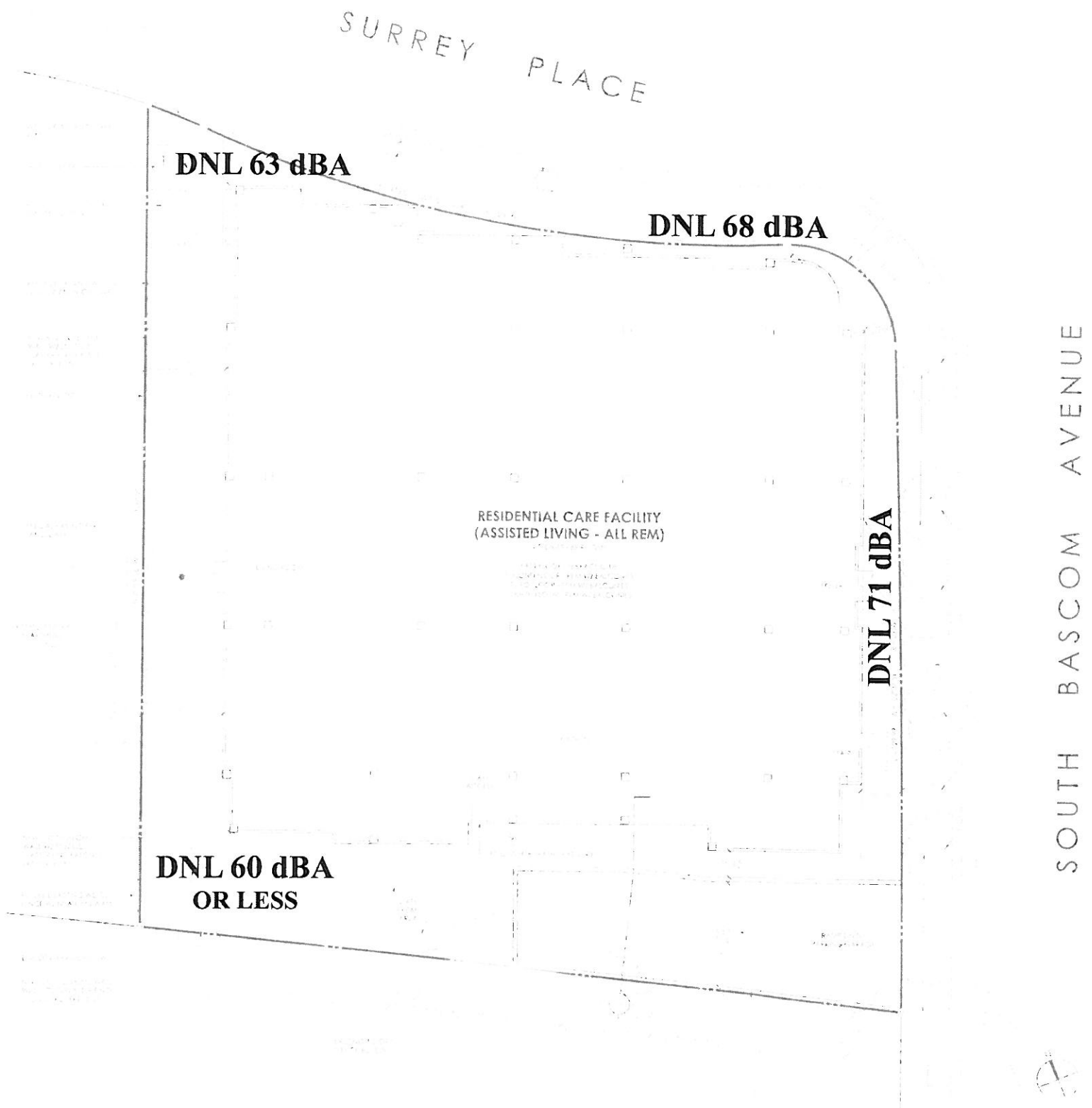
### *Stationary Noise Sources*

The project should incorporate mitigation to reduce noise from garage exhaust fans, the emergency generator, air conditioning units, and other stationary equipment to the limits outlined in the General Plan and Zoning Ordinance. Mitigation may include equipment selection, location, and equipment enclosures. Details should be determined during the design phase.

\* \* \*







NOTE: DRAWING PROVIDED BY OTHERS; NOT TO SCALE

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# SUNRISE SENIOR LIVING OF SAN JOSE SITE PLAN INDICATING ESTIAMTED FUTURE NOISE ENVIRONMENT

FIGURE 1

Project No. 07-0655  
JMR

